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KLEINE OPTICAL CO

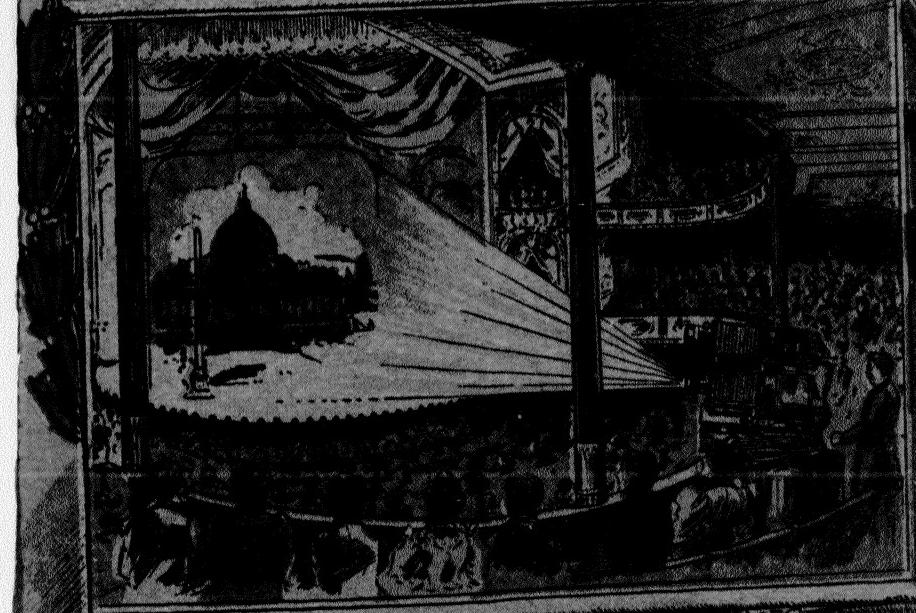
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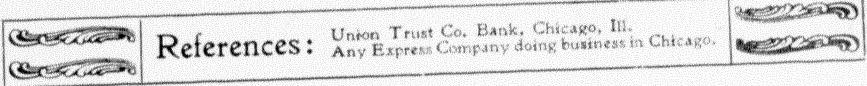
61

Complete Illustrated Catalogue
OF

STEREOPTICONS
MAGIC LANTERNS, ACCESSORIES
AND STEREOPTICON VIEWS.



Manufactured and Sold by the
KLEINE OPTICAL CO.
OPTICIANS.
52 State Street CHICAGO, ILL.



LIBERAL TERMS

If desired, we ship goods which we carry in stock C. O. D., with the privilege of examination. It is required that the customer send remittance sufficient to cover express charges. If goods are returned to us, all money received in excess of express charges paid by us will be refunded.

Customers may leave deposit to cover express charges both ways with their express agent or bank, and send us receipt.

Orders for goods to be sent by mail should be accompanied by cash in full.

On all orders with cash in full, two per cent. discount off catalogue rates.

We carry no book accounts; all transactions are to be either for cash or C. O. D., with deposit. Goods are not sold on time.

If fuller information is desired than is furnished by this catalogue on any point, we will be pleased to give it by mail.

Separate Catalogue Covering Edison Phonographs and Records sent free on request.

We do not assume responsibility for breakage in transit nor for safe delivery of goods sent by mail.

Kleine Optical Company

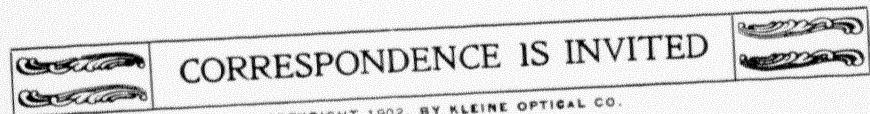
(Incorporated under the laws of the State of Illinois)

52 STATE STREET

CHICAGO, ILL.

If desired, we make shipments from New York City to eastern points to save customers' express charges.

NEW YORK address: 127 & 129 West 32nd Street, NEW YORK CITY



SOME NEW THINGS FOR PROJECTION WORK



This catalogue has been entirely rewritten and prices revised. Many new and interesting items have been added. Among them we call special attention to the following:

The Economic 1902 Magic Lantern, an effective instrument, economically finished but of standard pattern, to take any light and objectives of any focus.

The Economic 1902 series of Objective Lenses, from 1-4 to 4-4 focus, in quarter size mounting.

The Economic 1902 series of Burners for stereopticon use.

The New Economic Edison Moving Picture Machine; cheap in price, but effective.

A new high-power Moving Picture Objective for short distance.

A New Adjustable Stereopticon Objective to project at all distances from 10 to 150 feet.

Edison Moving Picture Films reclassified, series A, worth \$7.50 per 50 feet; series B, at \$6.00 per 50 feet.

Improvements in our No. 500 Dissolving Stereopticon:

A New High-Class Magic Lantern, "THE STANDARD," to take any standard size objectives from 4-4 to 1-4, and any form of illuminant.

A Series of Economic Stereopticon Views, religious, temperance, comic, etc.; very fine in quality, but cheap in price.

New Ideas in Projecting Public Announcements, Advertisements, Elections and other Bulletins, etc.

Stereopticon Slides, in the form of lecture sets, with Edison Moving-Picture Films to illustrate the same subjects.

The beginner will find much interesting and possibly valuable information scattered throughout these pages, which will repay careful reading.

This Catalogue copyright, 1902, by Kleine Optical Co.

The Magic Lanterns, Stereopticons and Stereopticon Apparatus listed in this catalogue embody the results of forty years' experience in their construction. While due regard has been paid to appearance—their beauty being unsurpassed in their several classes—attention is called chiefly to the perfection in mechanical construction of the various parts of the instruments and the perfect adaptability of the whole to the needs of the lecturer and exhibitor.

Four Years'
Experience

The Challenge series of lanterns is most compact and easily transported from place to place. The devices for adjusting the double lanterns of the stereopticon are such as afford every facility for the most delicate adjustment in raising and lowering the entire machine, varying the distance between the upper and lower lanterns, and moving the upper from right to left, forward or backward, independently of the lower; the rigidity of the entire apparatus when once fixed is assured.

Challenge Series
Most Complete

The lime light jets are constructed on a principle that assures the most perfect working capacity obtainable. Absolutely noiseless under high pressure. They are thoroughly tested before shipment, so that the operator need have no fear of hissing, sputtering or popping of his jets when properly handled during an exhibition—defects that are very common among other makes.

Lime Light
Jets

Special attention is called to new instruments and accessories recently made practicable for projection purposes by the progress of science, such as the Kinetoscope, for projecting both moving pictures and lantern slides, our eight-tip acetylene burner and acetylene generator, simplified apparatus for manufacturing the lime light gases at reduced prices, etc. No effort or expense has been spared in producing an apparatus that will stand at the head of instruments of its kind.

Moving Pictures
Acetylene Lanterns

As general Western Selling Agents for the Edison Manufacturing Co.'s projecting kinetoscopes and films, our facilities for supplying the latest types of machines and newest subjects in films are unsurpassed.

We are pleased to show the workings of the instruments listed herein to those contemplating purchase, in our exhibition room.

What are Moving Picture Machines and Films?



Part of a 50-foot strip Film showing exact width and size of individual Pictures.

The optical principle of the moving picture machine is practically the same as that of the magic lantern, the only difference being that the pictures appear on a flexible transparent film, passing the lenses in rapid succession.

The films which produce the moving pictures are made on a long transparent celluloid tape, the length of which varies from 25 feet upwards, and has on it a series of photographs taken at the rate of from 20 to 40 feet per second. The 50-foot film contains about 800 of these photographs. The movement of the object photographed has been recorded in such rapid succession that when the films are moved past the lenses in the projecting machine, at the same rate at which they were taken, the change from one picture to another is made so rapidly that the eye cannot detect it, and it seems to present on the screen a single picture with all the movements of life.

Moving picture films represent the very highest branch in the art of photography; that of bringing before the eye an exact life-size reproduction of life motion with all its accompanying effects of light, shade and expression.

To illustrate more clearly we will describe a scene as it is now exhibited in the theatre or opera house. The drop curtain has fallen for the intermission, when suddenly the house is darkened, and before the eyes of the audience a huge window appears to open. Through it is seen a bit of meadow landscape with a forest in the background, from which, to a point close by the window, stretches a section of railway on an embankment. A number of workmen are engaged in repairing the roadbed. There appears in the distance, just emerging from the wood, a cloud of white smoke which, within a few seconds, shapes itself into the outlines of an approaching train, and then an express train comes toward and by the window at a tremendous rate.

Every detail of motion is so clearly defined that even the rapid rise and fall of the piston rods can be plainly seen. As the train rushes past the section men wave their hats to the engineer, who is leaning from the cab window, and the porters are shaking table linen from the platform of the dining coach. In a twinkling the whole scene disappears, the theatre is again lighted up and before the audience hangs only the plain white curtain.

This illustration represents a 7-inch strip cut from a 50-foot film; subject, "The Morning Bath." It requires a 50-foot length to run about 1 minute, 100 feet for 2 minutes. Attention is called to the very slight difference between any two successive pictures, yet there is a manifest difference between the first and last.

In producing moving pictures upon a curtain each of the 800 small photographs is in turn projected by the lens, but because of the slight difference between succeeding views and the rapidity of projection the passing of the films on the curtain is such that the audience does not see the individual views, which are blended into one harmonious subject.

The perforations at the sides serve to aid the projecting machine in giving regular and rapid movement. The 9 pictures shown here consume about six-tenths of 1 second in passing through the instrument.

Operators of moving picture machines require about 15 to 20 fifty-foot films for an entertainment. If used with magic lantern views, about 6 to 10 films and 50 lantern slides will make a good entertainment.

A Talking Machine is an attractive addition to an outfit.

Instruments for Projecting Moving Pictures.

We advise customers who travel about from place to place, particularly those not well informed on the subject of electricity, to buy the machine with lime light jet.

The gases required for this burner are oxygen and hydrogen, which produce a brilliant light. These have been in use for many years with the stereopticon or magic lantern. They can be procured in any large city, compressed in tanks.

The cost of the gases in this case varies slightly, according to the place of purchase. They are sold by the cubic foot, and the tanks usually contain fifty feet under pressure. These measure twelve inches in diameter and are four feet high. The cost in Chicago is 12½ cents per cubic foot of gas; the quantity used per hour averages six feet, making the cost for gas about 75 cents per hour.

The calcium light companies furnish the tanks, charging nothing for the use, with the gas, allowing customers a stipulated time before their return is asked.

GAS MAKING APPARATUS.

Customers who find the cost of the oxygen and hydrogen gases irksome, or object to the time and expense of freighting to and from a city, can purchase a gas making outfit, as described herein. This cheapens the running cost by half, and with a sufficient supply of chemicals the operator is independent of outside sources of supply.

VIEWS FOR MOVING PICTURES.

To produce the effect of moving pictures requires many photographs, 800 or more to a subject, and the effect is produced by passing these rapidly before the light. They are usually photographed on a strip of celluloid, which may be 50 or more feet in length. The duration of the movement upon the curtain will depend upon the length of the film. Films are sometimes 25 feet in length, but these are too short to be effective.

Detailed lists of Edison moving picture films will be mailed on application.

All standard makes of films will fit any of the moving picture machines listed in this catalogue.

Prices of films, except where otherwise noted:

50 foot lengths, Edison Class A.....	\$7.50
50 foot lengths, Edison Class B.....	6.00

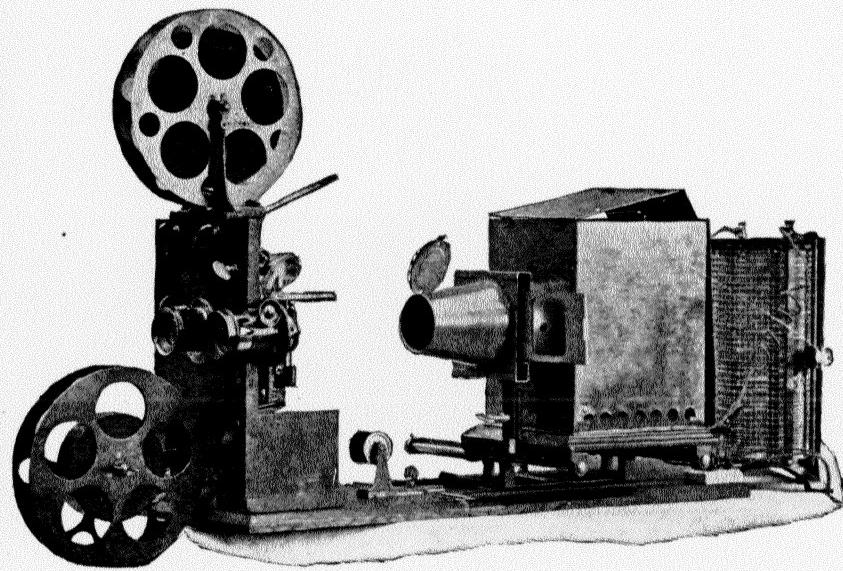
Other lengths at proportionate prices: Class A, 15 cents per foot; Class B, 12 cents per foot.

Owing to the nature of the films used for producing moving pictures we are compelled to make it an inflexible rule to send them on positive orders only. They cannot be shipped subject to examination or trial.

TERMS ON FILMS: Half or whole value with order. Balance, if any, C. O. D.

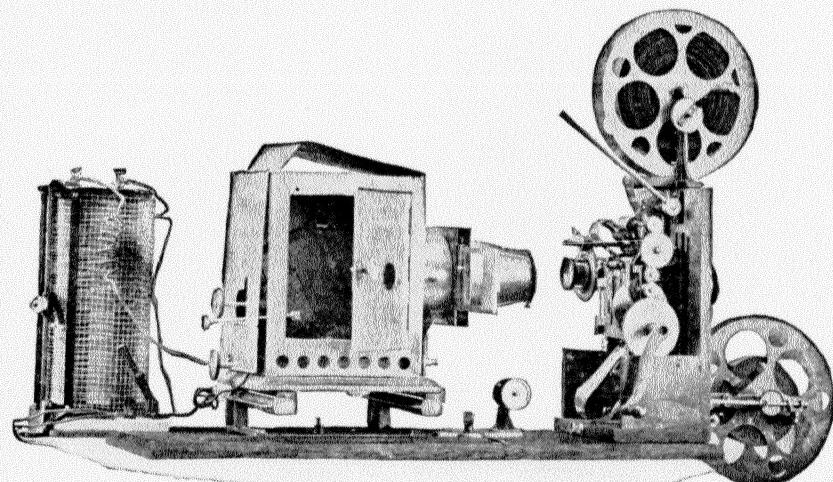
The Edison Projecting Kinetoscope, 1901 Model.

The 1901 Model Edison Projecting Kinetoscope for moving pictures only, or for both moving pictures and stereopticon views, embodies every improvement that science and experience have suggested. These instruments have attained the highest possible degree of perfection. Their reputation as the best moving picture machine on the market is thoroughly established and universally recognized.



CUT No. K 10.

Giving front view of the Edison Projecting Kinetoscope, 1901 Model. Rheostat on the right. Light centered on Stereopticon lens which is shown adjusted to its position on the left hand edge of the carrying case.



CUT No. K 11.

Giving a side view of the 1901 Model from the side of the machine on which the operator stands. The lamp in the Lamp House is an Edison Projecting Arc Lamp and the Machine is shown wired for the Direct Current with a Rheostat in circuit.

THE 1901 MODEL EDISON PROJECTING KINETOSCOPE.

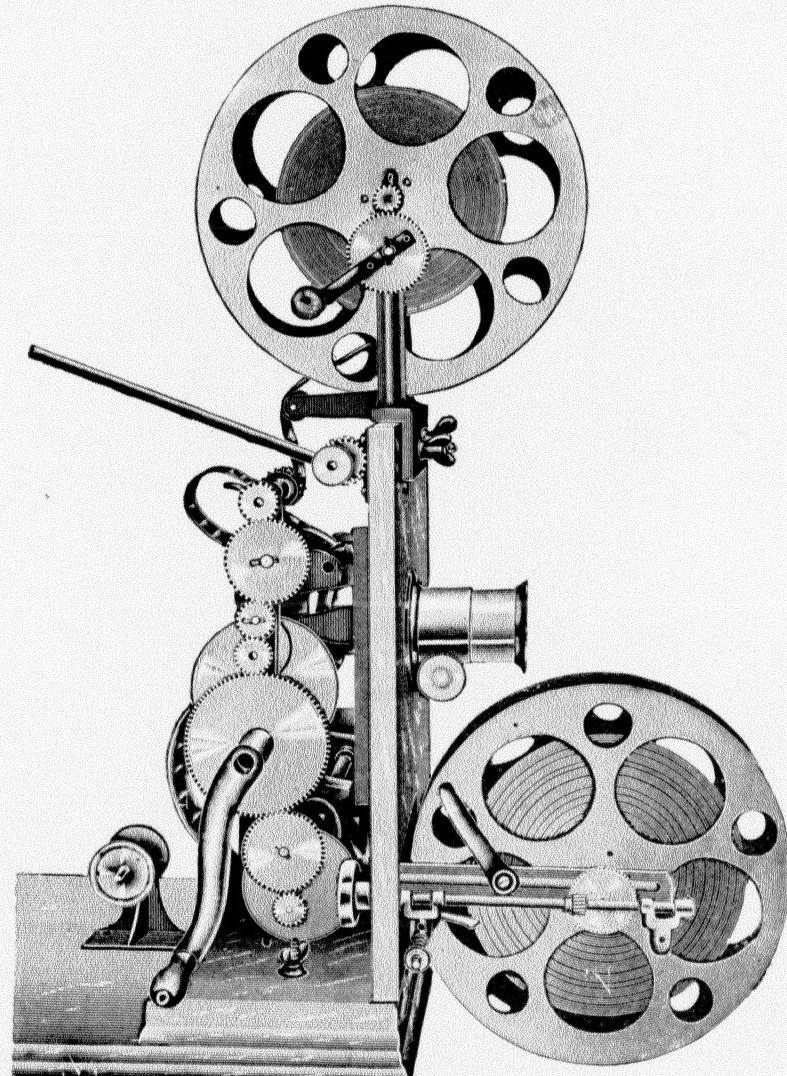
The new model Projecting Kinetoscope is shipped with all parts assembled, in a stout packing case; the various parts are detachable, however, for convenience in packing when exhibitors are traveling about.

The moving picture mechanism proper is contained in a quarter-sawed oak carrying case $18\frac{1}{4} \times 9 \times 6$ inches size, which can be carried by hand. The weight of the complete machine is $55\frac{1}{2}$ lbs.; with rheostat $71\frac{1}{2}$ lbs. The base board is hinged at the center for convenience in packing.

The advantages in Mr. Edison's machines are completeness, compactness, portability, simplicity, scientific accuracy, light weight, the projection of a steady picture upon the curtain and the lessening of injury to the films.

The 1901 model Kinetoscope is provided with a 10-inch reel which takes 1,200 feet of film. This is equipped with a winding crank for the immediate rewinding of the film after it has been run through the machine. It is detachable for convenience in packing.

The machine is equipped with triple sprocket gear; the top sprocket feeds the film from the reel into the framing device; the middle sprocket is intermittent, bringing the film to

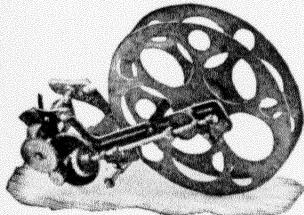


Moving Picture Mechanism, 1901 Model, Edison Kinetoscope.
Showing Reel with rewind device, lever for framing, take-up device, and idler pulley.

the point of exposure, and stops it for the fraction of a second required for projection. The lower sprocket takes up the film after exposure and feeds it into the take-up device.

A loop is formed as shown in illustration between the top sprocket and the door of the machine, and another loop between the middle sprocket and the lower one. By these means friction on the film is avoided and its life prolonged.

The framing device is very simple and strikingly effective. By adjusting the lever, which is shown in illustration No. K 11, the entire mechanism that holds the film is moved up and down, enabling the operator to frame his film in a fraction of a second. The use of this lever system enables the operator to disregard the framing of his film entirely when placing it in the machine. The convenience of this device will at once strike experienced operators.



CUT No. K 14.

Rewinding the film after exposure is very rapidly and simply done by releasing the film from the sprockets, passing it over the idler pulley attached to the baseboard of the machine and thence to the upper reel, to be rapidly rewound by means of the rewinding crank.

The lamp house is very practically constructed, allowing of thorough ventilation and minimizing the danger of cracking the condensing lenses. It has a hinged top, side and rear doors; is mounted on castings 2½ inches in height; it has forward and backward adjustment of 6 inches, by means of which the distance from the lamp house to the film can be increased or decreased to accommodate the condensing lenses of different focal length. It also has a side adjustment of 5 inches, by means of which the lamp house is swung from the moving picture to the stereopticon system and back again instantaneously.

The source of light may be arc electric, calcium or acetylene. The prices quoted include either electric lamp and rheostat or the improved calcium light burner, or the acetylene light lamp and generator. That is to say the machine may be ordered with any one of these forms of light; if more than one form of burner is desired it is charged extra.

The Edison projecting arc lamp designed for this instrument shows a number of improvements that will be appreciated by electricians. Either the 110-120 volt direct or the 52-104 volt alternating current can be used, 25 amperes giving the best results.

It rests upon an adjustable support which is provided with forward and backward movement. It is supported by a rod with adjustable up and down motion and the carbons are regulated instantaneously by means of an adjustment rod.

The supporting arms will take carbons from $\frac{1}{4}$ to $\frac{5}{8}$ inches in diameter.

The Arc Lamp is constructed for use with both direct and alternating current. When attached for direct current, marked "D" in illustration, the upper carbon is fed twice as fast as the lower. When adjusted for the alternating current, marked "A" both carbons are fed alike. It is therefore unnecessary to provide carbons of different sizes for different currents.

An eccentric supporting post that is furnished with each machine will accept either calcium or acetylene light burner which may have center or side supporting posts.

The rheostat is wound with special German silver rheostat wire and has a maximum capacity of 40 amperes, minimum 18. It is provided with side adjustment.

A calcium (oxy-hydrogen) burner is provided with the machine if preferred to the electric and is our best make, No. 115 described elsewhere in this catalogue. These can be furnished to take lamps either $\frac{5}{8}$ inches in diameter or 1½ inches.

The stereopticon attachment consists of a long focus objective lens which produces a stereopticon slide picture on the curtain that matches the moving picture in size. If desired the machines can be equipped with an objective lens that will produce a larger stereopticon than moving picture. The stereopticon objective is fastened to the front part of the Kinetoscope cabinet by the adjustable rod. The rod that supports the stereopticon objective is adjusted to a slotted arm which permits of wide adjustment either right or left, up or down for the stereopticon lens.

The entire stereopticon attachment weighs 2 pounds and is very easily adjusted for packing. The machine is provided with a double-slide carrier No. 135. This car-

rier may remain in place at all times during an exhibition, as it does not interfere with the projection of moving pictures.

The objective lens of the projecting Kinetoscope is a special wide angle giving a field of 9½x11½ at a distance of 50 feet from the curtain.

Dimensions of the complete machine when set up ready for operation: Length, 3 feet 9 inches; width, 11 inches; height, 2 feet 11 inches.

PRICES OF EDISON PROJECTING KINETOSCOPES.

No. K 40. Edison 1901 Model Projecting Kinetoscope complete, equipped with either electric, calcium or acetylene burners, adapted for the projection of both moving pictures and stereopticon views, complete with take-up device, stereopticon attachment and other parts as described.	\$115.00
No. K 41. Edison 1901 Model Projecting Kinetoscope for the projection of both moving pictures and stereopticon views, as described under No. K 40, but without take-up device. Price.....	105.00
No. K 42. Edison 1901 Model Projecting Kinetoscope for moving pictures only, including the take-up device but without stereopticon attachment. Price	105.00
No. K 43. Edison 1901 Model Projecting Kinetoscope for moving pictures only, without take-up device and without stereopticon attachment. Price	95.00
No. K 44. Edison 1901 Model Stereopticon attachment only. Price.....	12.00
No. K 45. Take-up device for 1901 Model Projecting Kinetoscope. Price. 15.00	
No. K 46. Moving Picture Mechanism only, with take-up device, reel, reel hanger, objective, carrying case, to be attached to customer's lantern. 25.00	
No. K 47. Same as No. K 46, but without take-up device.....	75.00
Customers can obtain outfit No. K 40, equipped with both calcium light and electric, with rheostat. Price \$125.00.	

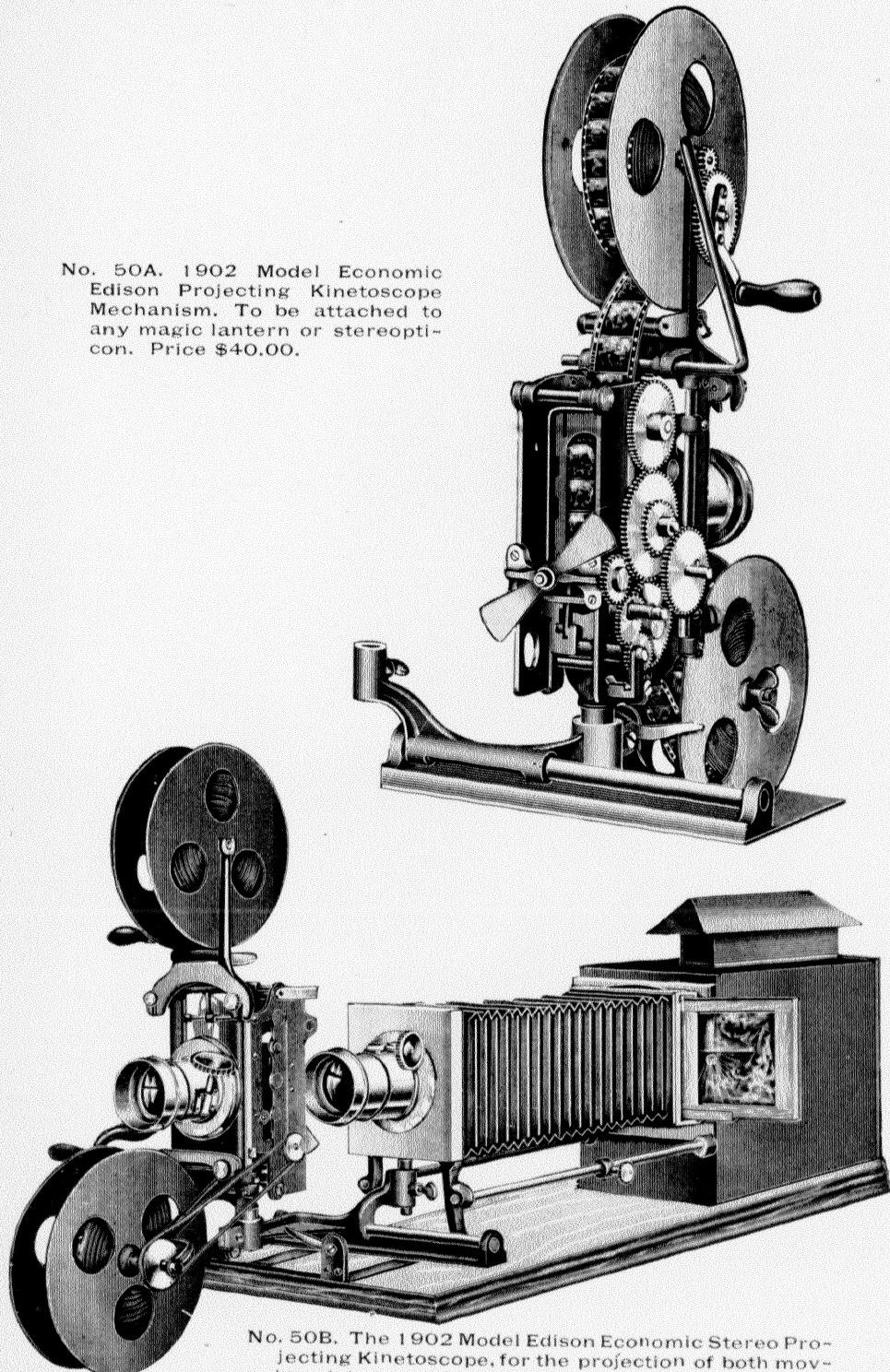
THE EDISON PROJECTING KINETOSCOPE.

The Projecting Kinetoscope and Edison Films represent the very highest development in the art of photography, that of bringing before the eye an exact life-size reproduction of motion, with all its accompanying effects of light, shade and expression. By means of a transparent picture film, an intense light and proper arrangement of the lenses, the pictures are projected upon a screen one after another, in such rapid succession that the eye cannot perceive any intermission between them, thus producing a perfect illusion of continuous action.

The Projecting Kinetoscope not only displays such pictures to a great number of people at the same time, but it also enlarges the scenes and figures to full life-size and illuminates them brilliantly.

The Stereopticon Attachment can be used independently for showing views of any description whatsoever; also with great success for the illustrated songs now so popular, where the singer appears upon the stage and the song is illustrated with views thrown upon a screen at interesting parts of the recital, or talking machine can be used.

The objective lenses that are included with the stereo projecting Kinetoscope are long-distance lenses, best adapted for large theatres and halls, for distances from 50 feet up, between machine and curtain. Exhibitors who project at shorter distances are advised to order the instrument with short-distance lenses in place of the long; these project a larger picture, both stereopticon and moving, at shorter distances between curtain and machine. Either set will be shipped without change of prices. Those desiring both sets of lenses with instrument can purchase them at an addition of \$15 to price.



No. 50A. 1902 Model Economic Edison Projecting Kinetoscope Mechanism. To be attached to any magic lantern or stereopticon. Price \$40.00.

No. 50B. The 1902 Model Edison Economic Stereo Projecting Kinetoscope, for the projection of both moving pictures and stereopticon views. Price \$64.00.

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The 1902 Model Edison Projecting Kinetoscope.

A NEW EDISON MOVING-PICTURE MACHINE.

(See Illustration.)

Sold either as a moving-picture mechanism, which can be attached to customers' magic lantern or stereopticon, of any standard pattern, or as a complete instrument, for both moving pictures and stereopticon views.

The Economic Edison Projecting Kinetoscope is not intended to supplant the larger Projecting Kinetoscope, 1901 Model, but is constructed with a view to satisfying the demand for a cheaper instrument; at the same time its efficiency is guaranteed by the name of Edison. It is the latest product of the Edison factory, manufactured under the great inventor's personal supervision, and must not be confounded with the cheap moving-picture machines of other make that are on the market, which are not in its class.

It is a high-class mechanism.

It is compact.

It is light in weight.

It is equipped with take-up device, and reels will carry 600 feet of film. It is highly efficient and guaranteed to project moving pictures as steadily, with as little flicker, and give as good results as any other moving picture machine on the market.

PRICES.

No. 50A. The 1902 Edison Economic Moving Picture Machine mechanism; can be attached to any magic lantern or stereopticon of standard pattern. Includes long or short distance objective, as desired; take-up device; two reels to carry 600 feet of film each, one of them for take-up; instantaneous framing device; newly devised shutter. High-class in every respect. Price \$40.00

No. 50 B. The 1902 Edison Economic Moving Picture Machine, complete for the projection of both moving pictures and stereopticon views; consisting of mechanism. No. 50 A, attached to an economic lantern, with lime or electric light. Price 64.00

This instrument includes all the parts necessary for moving picture and stereopticon work. Changes from one to the other are instantaneous. The parts included are as follows:

1. Moving picture mechanism with two reels, instantaneous framing and take up device.
2. One pair condensing lenses, $4\frac{1}{2}$ in. diameter, mounted.
3. One wide angle objective to project a large moving picture at a short distance.
4. One stereopticon objective to project lantern slides that match the moving picture in size.
5. A Magic lantern body to enclose the light.
6. A lime light burner of high power, or an arc electric light burner.
7. An instantaneous change slide carrier.
8. A carrying case.

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THE 1902 MODEL EDISON PROJECTING KINETOSCOPE—Continued.

The objective included with the Economic Edison Projecting Kinetoscope No. 52 B projects a picture 10 feet in size at a 33-foot distance; 15 feet in size at 50 feet; a 20-foot picture at 65 feet, etc.

If desired a long-distance lens will be provided with the instrument in place of the short distance without extra charge. These project a smaller picture at equal distances.

If both kinetoscope objectives are ordered, for long and short distance, add \$7.00 to the price. Extra stereopticon objective, \$6.00.

Acetylene Light Stereo-Projecting Kinetoscope.

Although we do not recommend the use of acetylene light for the projection of large and distinct moving pictures, it frequently happens that customers desire to exhibit in country school houses, small churches, etc., which do not require a larger picture than one 6 feet in size.

For this purpose we provide the **Edison Economic Stereo-Projecting Kinetoscope** with an **Acetylene Light Burner** in place of the lime or electric light.

The use of the acetylene gas generator simplifies the question of illumination greatly. Our acetylene generator weighs but 11 pounds, is 19 inches in height, diameter 8½ inches, and is therefore much more easily handled than the ordinary gas-making outfit for lime light.

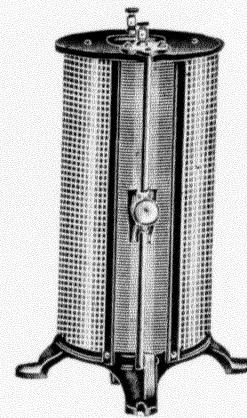
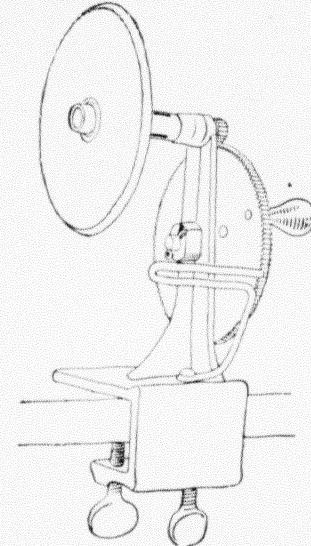
In using the acetylene gas generator with the Kinetoscope, the operator should place his machine at a distance of 25 feet or less from the curtain. The size of the picture being about 7 feet at a 25-foot distance and decreasing in size as the distance decreases.

The illumination at this distance with acetylene light would not be as bright as with lime or electric at the same distance, but will give fairly good results in small houses for audiences that are limited in size. The cost of calcic carbide sufficient for a two hours' run is about 14 cents.

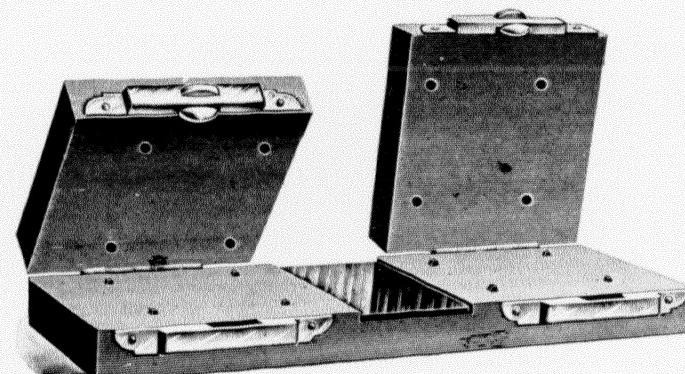
The outfit specified below is complete for the projection of moving pictures and stereopticon views; as we include calcic carbide and the gas generator, the operator is provided with the means of making his gas without further apparatus. See description of acetylene generator and burner in this catalogue.

No. 50 C. Edison 1902 Economic Stereo-Projecting Kinetoscope, for use with acetylene light for the projection of moving pictures and stereopticon views, including acetylene light burner, acetylene gas generator, 10 pounds calcic carbide, rubber tubing to connect burner with generator. **Price** \$70.00

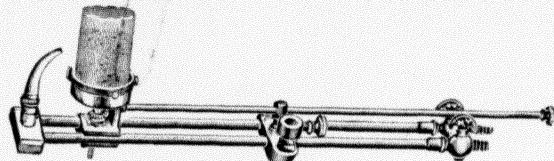
Supplies for Projecting Kinetoscopes, Etc.



No. 129. Film Winder, for rewinding films after being run through machine. Price	\$1.50
No. 115. Lime Light Burner, for projecting Kinetoscope, using standard size limes 7/8 inches in diameter.....	\$12.00
No. 115A. Jumbo Lime Light Burner for special limes, 1½ in. diameter. Price	15.00
No. 250. Special Imported Carbons, 3/8 or 1/2 inches diameter, cored or solid. Price per dozen 60 cents; per hundred	4.00
No. 251. Film Cement, for joining films. Per bottle25
No. 252. Blank Film, perforated for spacing. Per foot10



No. 253. Film Mender, metal, hinged. Price	\$7.50
No. 253A. Film Mender, wood. Price	2.00
No. 254. Reels for Projecting Kinetoscope. Each	1.00
No. 255. Edison Arc Electric Lamp, hand feed. Price	10.00
No. 256. Knife Switch. Price40
No. 257. Condensing Lenses for Kinetoscope. Each	2.00
No. 258. Mixed Chemicals for making Oxygen. Per pound15



No. 115A. Jumbo Calcium Light Burner.

A New High Power Lime Light Burner

Exhibitors using lime light with Moving Picture Machines or Stereopticons are sometimes dissatisfied with the illumination obtained from even the best of ordinary calcium light burners. For the benefit of those requiring extra high power of illumination, we have placed upon the market

No. 115A. JUMBO CALCIUM LIGHT BURNER

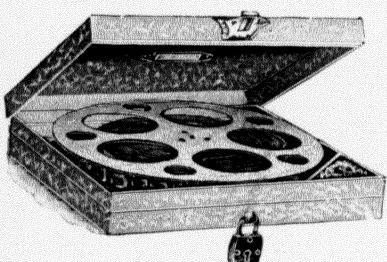
This is specially constructed for the production of the highest illuminating power and consumes about 30 per cent more gas than the standard burners. The opening in the cup that holds the lime cylinders is 1½ inches in diameter, and the limes 1 7-16 inches. (Standard size limes are 7/8 inches in diameter.) Each of these burners is tested in a laboratory and is guaranteed.

Price of Jumbo Calcium Light Burner No. 115A, for Moving Picture Machine or Stereopticon, extra high power..... \$15.00

1 Dozen Lime Cylinders for the same, 1½ inches in diameter, in tin canisters..... 3.00

1 Dozen Lime Cylinders, 1½ inches diameter, reduced at bottom to 7/8 inches to fit standard burner, in tin canister..... 3.00

No. 117. REEL CASE

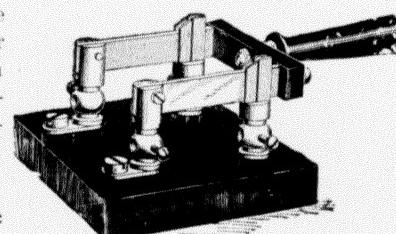


No. 117. Case to hold 12-inch Edison Reel, with sponge compartment to keep film in good condition; japanned, provided with handle, lock and key. Price, each..... \$1.50

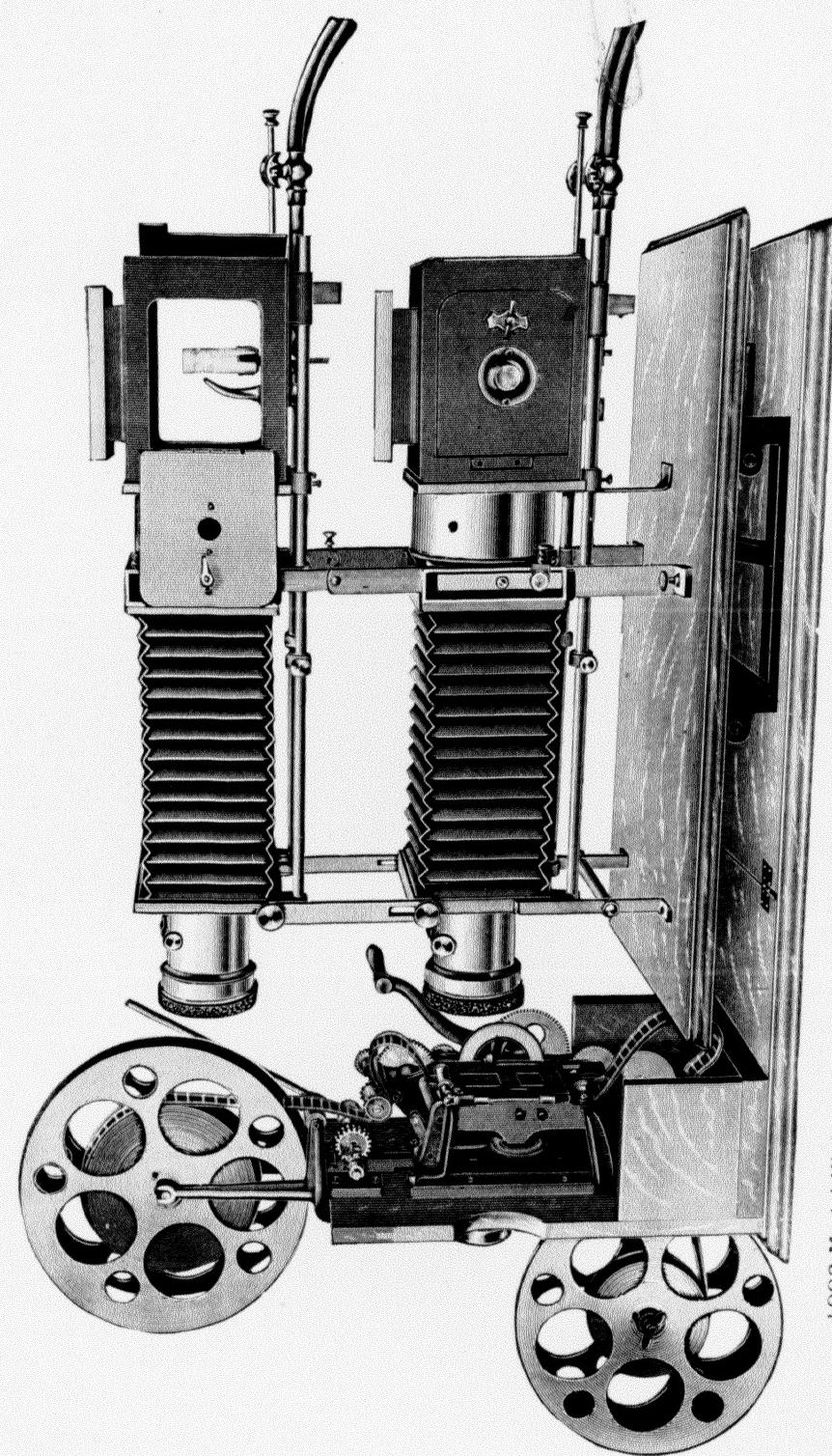
KNIFE SWITCH

When using electric light, it will be found convenient to have a switch near the Stereopticon and within easy reach of the operator, so as to turn off the current when desired. This switch is especially adapted for that purpose and has a porcelain base for insulation.

Price 40c



No. 10 wire to carry main supply of current.....	5 cents per foot
Flexible cable for stage use.....	10 cents per foot
Fuse wire.....	50 cents per spool
Fuse block.....	50 cents
Plugs, 10 to 25 amperes.....	15 cents



Outfit No. 500D

For Dissolving Stereopticon Views with Moving Pictures.

For the use of exhibitors who desire the finest effects with dissolving stereopticon views with the best moving pictures that can be produced, we have designed and now place on the market Outfit No. 500D. This outfit is as perfect in every part as optical science and mechanical skill can make it; in the quality of the lenses, the completeness of the mechanical appliances, the perfect adaptability of the machine to any work that may be called for, it stands unrivaled. For use with lime-light gases taken from tanks.

Specifications of Outfit No. 500D

For calcium light, using the gases oxygen and hydrogen under high pressure, furnished in two tanks by the calcium light companies.

THE STEREOPTICON BODY:

Consists of two magic lantern bodies with connecting parts, made of brass castings, highly finished, nickel plated; with adjustable stops for slides and slide carrier. Has perpendicular slide adjustments to register the views of both lanterns upon the same spot on the curtain, and fine adjustment on upper lantern for perfect registration right and left. Has elevating screws on front support, to incline the instrument at any desirable angle. The extension for focusing is obtained by means of collapsible bellows, made of leather and warranted 10 years. The light boxes are made of genuine Russia iron.

TWO LIME LIGHT BURNERS:

Our best quality, highly finished, nickel plated, with stop-cocks and adjustable mechanical lime movement warranted noiseless under the highest practicable pressure of gases. These burners, when used with the high pressure dissolving key, are universally recognized as achieving the highest illumination that is possible with dissolving lime light. Each is attached to an adjustable support.

TWO HALF SIZE OBJECTIVES, BEST QUALITY;

Two half-size objectives are attached to the upper and lower lantern. No matter how perfect the balance of the instrument, if the objectives are defective, the picture on the curtain is ill defined and imperfect in detail. With this outfit we furnish the best Bausch & Lomb or Darlot.

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TWO PAIRS OF CONDENSING LENSES:

These lenses are four and a half inches in diameter, also of finest quality with finely polished surfaces, made of the best glass that can be obtained for this purpose. The focus of the condensing lenses is selected with special reference to the work required of the stereopticon with moving picture attachment.

TWO MOUNTINGS FOR CONDENSERS:

These are made of brass, nickel plated, with ventilating holes. They are mounted in front of the light body, not inside of it. They, with the lenses, can at any moment be lifted out of place for cleaning and returned without disturbing the burner, or any other part of the instrument. The condensing lenses are laid in the mounting and held in place by a threaded collar; they are not fastened in, and can be removed at will.

HIGH PRESSURE DISSOLVING KEY:

Of all the various parts that enter into the projection of perfect dissolving stereopticon views, none is of greater importance than an efficient dissolving key. These are made in two styles: the high pressure key and the low pressure key.

We include with outfit No. 500D the best high pressure key that is made, value \$30, and elsewhere described in detail in this catalogue. A low pressure key can not be efficiently employed when gases are used out of the high pressure tanks; and of the various high pressure keys that are on the market, all of which we have thoroughly tested, the patented key which we include with this outfit is the only one that has always given entire satisfaction.

Specifications of Outfit No. 500D—Continued.

The gases are regulated at the key instead of at the tanks. It is the only high pressure key that has two independent plugs, which control the gases separately in their passage to the burners; all the other keys have but one plug.

THE EDISON PROJECTING KINETOSCOPE ATTACHMENT:

This attachment for moving pictures is the same as that used on the complete Edison moving picture machine, and is elsewhere described in this catalogue. It is Mr. Edison's best model with lever for instantaneous framing of slides, achromatic objective, with specially fine definition for the projection of a perfect moving picture. This objective can be used at any practicable distance up to 100 feet providing there is a sufficiently strong light used. The picture increases in size with the distance. At 100 feet between the curtain and instrument the moving picture would be about 25 feet in size. The average distance at which these machines are used is from 40 to 60 feet; size of the picture at this distance would be from 9 to 14 feet.

The Kinetoscope attachment is also provided with a cover for the working parts which completely encloses it and is supplied with a leather handle for carrying.

This attachment will project views from any film that is made of the standard size,

Price of Outfit No. 500D, complete as described, \$255.00.

If customers prefer, we will provide with the stereopticon our New "Jumbo" No. 115A lime light burner with lime cup using a lime cylinder $1\frac{1}{2}$ inches in diameter, without extra charge, in place of the regular burner that uses the standard size lime $\frac{3}{4}$ inches in diameter. The $1\frac{1}{2}$ inch limes cost \$3.00 per dozen. The "Jumbo" burners consume about 30 per cent more of gas than the standard. If desired, the kinetoscope attachment will be provided with the self-focusing objective No. 258 in place of the regular at an addition of \$10.00 to price.

Outfit No. 500E

For dissolving stereopticon views with moving pictures, with gas-making apparatus for lime light

For the use of exhibitors who purchase a gas making outfit for lime light in preference to buying the gases in tanks from the calcium light company. Outfit No. 500E includes all the items specified under Outfit No. 500D, with the following changes: we add the gas making outfit described in this catalogue under No. 130B, including gasoline saturator, by means of which the exhibitor can produce his own gases for lime light.

As gases made in this way are under low pressure, we omit the high pressure dissolving key and include a low pressure dissolving key.

Price of Outfit No. 500E, including low pressure dissolving key and Gas-Making Outfit for Lime Light, - - - - - \$275.00

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EXHIBITION OUTFITS.

We have indicated on this and the following pages various kinds of complete outfits, including moving picture machine and films, stereopticon and views, talking machine and records.

OUTFIT No. 14 A. PRICE \$810.00.

This outfit is compiled for the benefit of those exhibitors who wish to buy the very best and most complete public exhibition instruments, views, etc., regardless of cost. There are many ways in which an exhibitor can cheapen his outfit without necessarily taking away any of the items included. This could be done by equipping the outfit with cheaper machines, lenses, burners, views, etc., or with a smaller quantity of supplies.

Outfit No. 14 A is in every particular the best of its kind that can be put up. No attempt has been made to substitute any parts that might be considered "nearly as good" and which would be cheaper. In order to understand the details of the various parts customers are referred to illustrations in this catalogue.

The outfit includes:

Kleine Stereopticon and Edison Kinetoskop apparatus No. 500 D, as previously described. This embraces our best dissolving stereopticon, provided with highest grade lime light burners, best quality high pressure key, best quality $\frac{1}{2}$ -size objective lenses in standard mountings, best quality condensing lenses, the whole mounted on a double base board, the upper with sliding support; best model Edison projecting kinetoscope mechanism, the whole finished in finest style.

The instrument is to be used with gases purchased in tanks from the calcium light companies.

1,500 feet of Edison moving picture films, either our or customer's selection from the entire Edison list.

One set of stereopticon views, "Lights and Shadows of a Great City" (New York), 61 in number, with descriptive lecture, all colored in the finest style.

We wish to emphasize the fact that these views are made from original negatives and are wet plates or collodion slides, which have a brilliancy and sparkle that the ordinary dry plates do not possess. The coloring of these slides is the work of our most accomplished artist and is not to be classed with ordinary slide coloring. Customers that prefer to make some other selection in place of this set may pick out \$5.00 worth of other slides from our or any other list in its place.

Also, the following moving picture films which can appropriately be used with this lecture set and are included in addition to the 1,500 feet of film listed above; if preferred customers may select an equal quantity of film from the complete list in place of these.

Police Patrol Wagon, length 45 feet.

Panoramic View of the Ghetto, New York City, length 100 feet.

Panoramic View of Brooklyn Bridge, River front and Tall Buildings from the East River, 125 feet.

Burglar on the Roof (comic), 50 feet. Bowery Five Cent Shave (comic), 100 ft. Dancing on the Bowery (comic), 50 feet.

Also one set of dissolving views, 12 in the set, colored in the finest style, wood mounted, value \$1.35 each, title "Rock of Ages."

One Chromatope "American Flag."

One Chromatope "McKinley."

One Chromatope "Good Night."

The above chromatopes are worth \$3.75

Price of Outfit No. 14 A, as described, \$810.00.

Outfit No. 14 B.

The outfit is the same in all respects as outfit No. 14 A, but we add gas making outfit for lime light and substitute a low pressure key in place of the high pressure key; the low pressure key being better adapted for gas making outfit than the high pressure.

Price of Outfit No. 14 B, \$845.00.

Note—Dealers are forbidden to copy our copyrighted poster designs and other matter without our permission in writing.

CHALLENGE EXHIBITION OUTFIT No. 12 D.

For Moving Pictures, Stereopticon Views, Music, Etc.

Price, \$450.00.

We have made up the following outfit, most complete and thorough, for the benefit of exhibitors who wish to offer a high-class entertainment to the public, embracing the best concert phonograph and records, the best moving picture machine and the most popular stereopticon views, with striking posters for advertising, etc. The outfit includes:

Edison Stereo Projecting Kinetoscope, best model, No. K 40, for moving pictures and stereopticon views, with lime light burner.

Gas making outfit for lime light.

One curtain, 15x15 feet.

Fifteen moving picture films, best Edison make, average 60 foot lengths, or 900 feet in all, customer's or our selection as preferred.

Fifteen feet of blank film for joining.

One bottle film cement.

Three dozen lime cylinders.

Sixty magic lantern views, 10 colored and 50 uncolored, standard size, $3\frac{1}{4} \times 4$ inches, photographs on glass with protecting cover glass, selected from our catalogue.

One handsome slide box to hold 100 slides, with partitions, straps, etc., our No. 100 A.

Two sets illustrated song slides, colored, eight slides in each set, with two concert records.

(These illustrated song slides are to be projected on the curtain by means of the instrument, while the Edison Concert Phonograph is playing the words of the song).

Price of Outfit No. 12 D, \$450.00.

CHALLENGE EXHIBITION OUTFIT No. 12 E.

For Moving Pictures and Stereopticon Views.

Price, \$331.50.

Includes all items in outfit No. 12 D, above, except:

Two sets of illustrated song slides.

One concert phonograph.

Twenty-four concert records.

Forty-eight-inch horn.

Six record blanks.

Price of Outfit No. 12 E, \$331.50.

EXHIBITION OUTFIT No. 17 A. PRICE \$265.00.

Outfit for Moving Pictures with Dissolving Stereopticon.

This outfit includes the following:

One Economic Dissolving Stereopticon with lime light burner, No. 300, elsewhere listed in this catalogue.
One Economic Edison Moving Picture Mechanism, No. 50 A.
One low pressure dissolving key.
One gas making outfit No. 130 A.
600 feet of Edison moving picture film, class B.
One curtain, 14 feet square.
One rapid change slide carrier.
One set of 60 stereopticon views, standard size, 3½x4 inches, of which 10 are colored.

Price of Outfit No. 17 A, \$265.00.

EXHIBITION OUTFIT No. 17 B. PRICE \$283.00.

This outfit includes all parts as listed under No. 17 A, to which we add two arc electric lamps and two rheostats. \$283.00.

EXHIBITION OUTFIT No. 17 C. PRICE \$230.00.

Includes all items as described under Outfit No. 17 A, omitting two lime light burners, 10 pounds of chemicals, one low pressure dissolving key and one gas making outfit, and substituting in their place two acetylene light burners, one acetylene generator, one acetylene dissolving key and four 5-pound cans of calcic carbide.

EXHIBITION OUTFIT No. 18 A. PRICE \$60.00.

Magic Lantern Views, Etc., Without Moving Pictures

Economic Magic Lantern No. 60, with acetylene burner and generator, long or short distance objective.

Sixty standard size stereopticon views, 3½x4 inches, of which 10 are colored and 50 plain.

Twelve standard size comic slides, 3½x4 inches.

One curtain, 10 feet square.

One rapid change slide carrier.

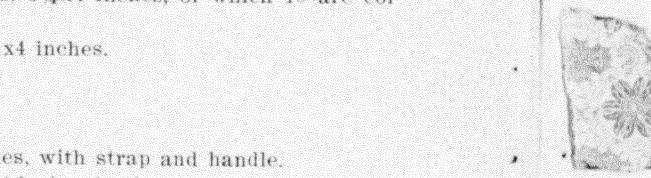
Twelve Gem slides.

One slide box to hold 75 standard slides, with strap and handle.

Five hundred advertising posters, 18x24 inches in size.

Five hundred admission tickets.

The above can also be furnished with lime, electric and oil lamp at an addition of \$4.00 each.



Challenge Exhibition Outfit No. 16 M. Price \$139.00.

For Moving Pictures and Stereopticon Views, with Acetylene Light.

Outfit No. 16 M includes the following items:

- 1 Edison Economic Stereo-Projecting Kinetoscope with acetylene light burner No. 50 C.
- 1 Acetylene Gas Generator.
- Rubber Tubing to Connect Generator with Burner.
- 1 Curtain, 12x12 feet.
- 6 Moving Picture Films, 50 foot lengths, class B, Edison make, customer's selection.
- 1 Bottle Film Cement.
- 10 Pounds Calcic Carbide to make Acetylene gas; in tin canister.
- 6 Comic Views with motion, wood mounted slip slides.
- 1 Slide "Welcome."
- 1 Slide "Good Night."

Outfit No. 16 M is complete for use and requires no further apparatus in the way of gas making outfits, etc. After the ten pounds of calcic carbide are exhausted, further supplies can be bought in bulk at 7 cents per pound. One pound will last about one hour.

Outfit No. 16 N. Price \$169.00.

For moving pictures, stereopticon views, with calcium light and gas making outfit. This outfit includes all parts listed under No. 16 M, with the following changes:

We omit acetylene light burner and generator, 10 pounds of calcic carbide, and in their place furnish a lime light burner and gas making outfit No. 130 D for calcium light.

Challenge Outfit No. 16 P. Price \$79.00.

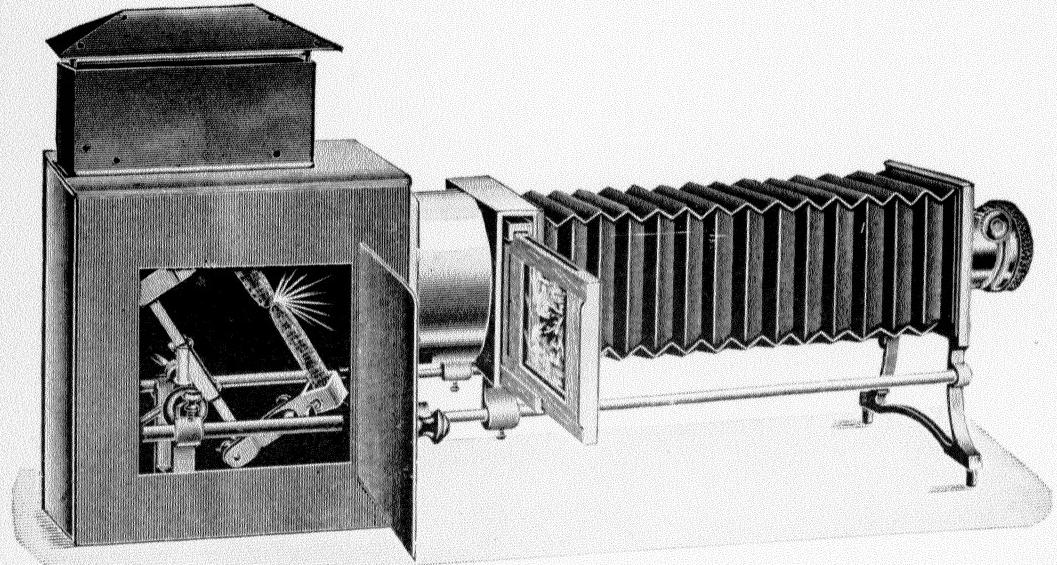
Outfit No. 16 P is not a complete outfit, but consists of the moving picture attachment and films to be added to customers' outfit in making change from magic lantern or stereopticon to moving picture machine.

In this case the body of the customers' magic lantern and light are used behind the moving picture attachment, to make a complete moving picture machine, as well as magic lantern.

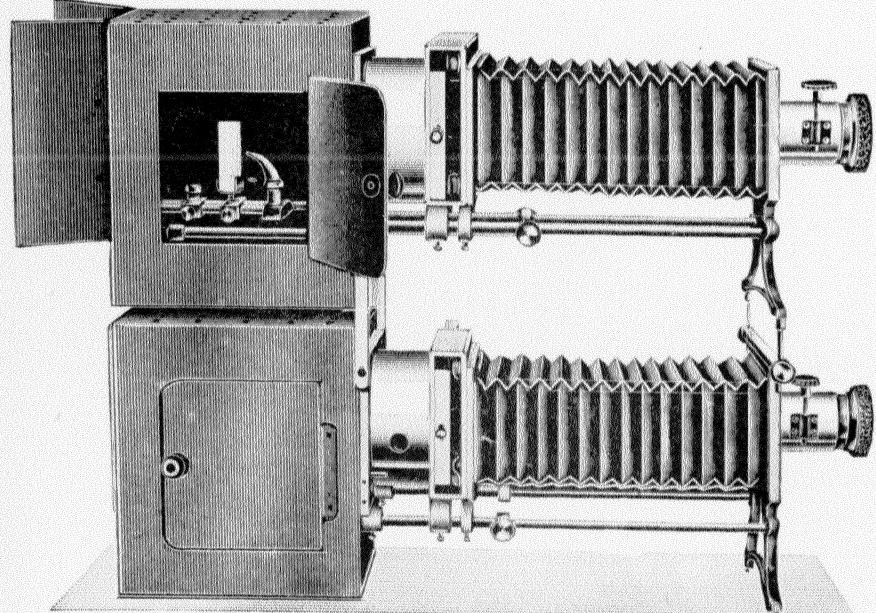
Outfit No. 16 P includes the following items:

- One Edison projecting Kinetoscope moving picture attachment, Economic model No. 50 A.
- One Base Board, to which Kinetoscope attachment is fastened, and which is also intended to support customer's magic lantern or stereopticon.

Six moving picture films, Edison make, Class B, 50 foot lengths, or an equivalent total of 300 feet of Edison films of various lengths.
Five Hundred posters, 18x24 inches in size, with large illustrations covering moving pictures, stereopticon views and talking machine, or any other combination that customer wishes to make.

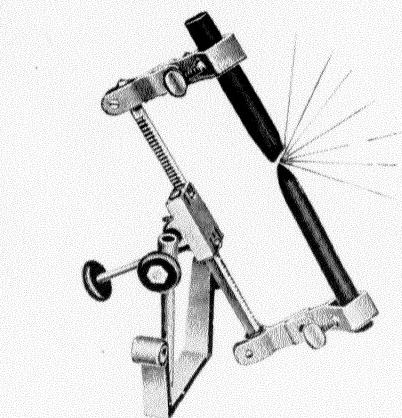


No. 60. Economic 1902 Magic Lantern. Can be used with lenses for any distance, and any form of illuminant. Price, \$24.00.

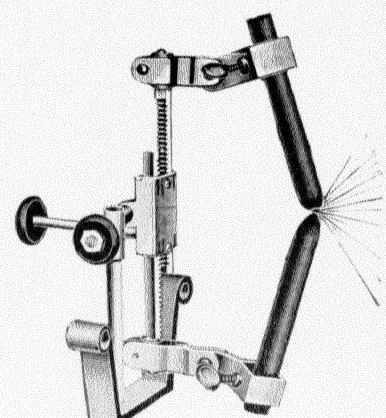


No. 300. Economic 1902 Model Dissolving Stereopticon. Price, \$50.00.

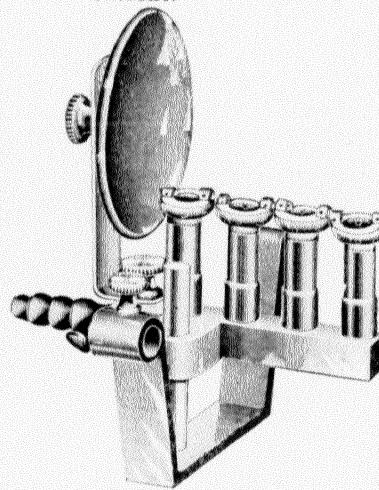
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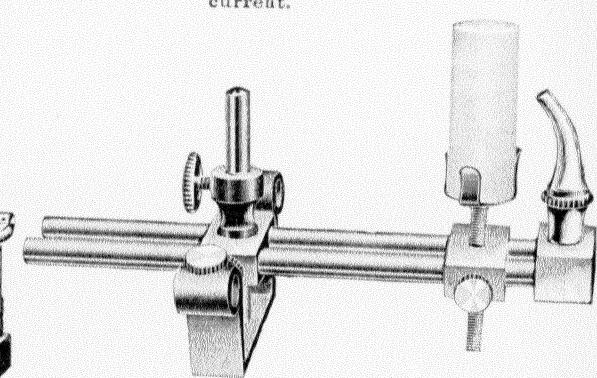
No. 2. Economic Arc Electric Lamp, showing position for direct current.



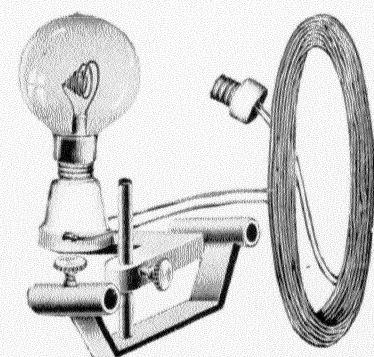
No. 2. Economic Arc Electric Lamp, showing position for alternating current.



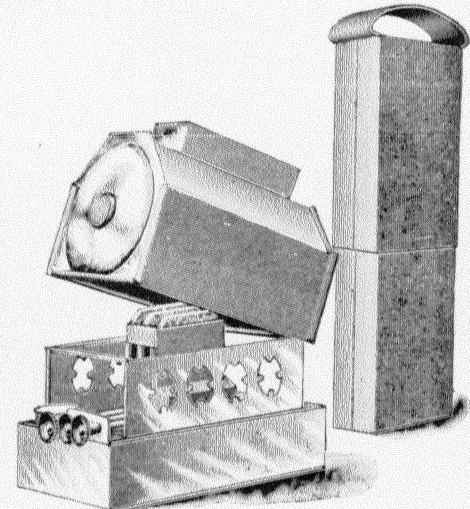
No. 4. Economic Acetylene Lamp.



No. 1. Economic Calcium Light Burner.



No. 3. Economic Incandescent Lamp.



No. 5. Economic 3-wick Oil Lamp.

Various Illuminants that are Used with "Economic 1902 Magic Lantern."

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“ECONOMIC 1902.”

A NEW MAGIC LANTERN.

(See illustrations).

PRICE.....\$24.00

We now offer the “Economic 1902,” a new magic lantern which we construct with a view to combining

ECONOMY WITH UNIVERSAL APPLICATION.

Such an instrument has hitherto not been obtainable except at very high prices. We equip the apparatus with acetylene, calcium, arc electric, incandescent or oil lamps, with lenses for extra short, middle or long distances, as selected, without any variation in price for long or short distance objectives or burner.

A careful reading of the following specifications will convince the exhibitor that this is the cheapest effective apparatus that has ever been offered for theatrical or lecture work.

NO. 60. PRICES OF “ECONOMIC 1902” MAGIC LANTERN.

The “Economic 1902” Magic Lantern with extra short, middle or long distance objectives as selected (i. e., objective 1, 2, 3 or 4 described below), and with burner as described (Nos. 1, 2, 3, 4, 5 or 6), including instantaneous slide carrier and carrying case. **PRICE COMPLETE, \$24.00.**

(When equipped with acetylene burner, price does not include acetylene generator; with arc lamp, rheostat is not included).

SPECIFICATIONS:

The Body.—Front and rear plates are of substantial metal, rough nickelized, provided with bellows for long or short extension to take small size objectives of any focus for long or short distance. Lamp house is well constructed of sheet metal with hinged door and canopy for ventilation.

The Objective Lenses.—The apparatus is equipped with one of the following objectives, customer's selection, either Nos. 1, 2, 3 or 4 for short, middle or long range, as desired.

DESCRIPTION OF OBJECTIVES FOR SELECTION:

Economic Objective No. 1.—An extra short focus lens, which is sometimes called a “behind the curtain” objective, because it is especially adapted for situations that offer a very short distance between instrument and curtain. For instance, if the instrument is to be used behind the curtain on the stage of a theatre, the audience viewing the picture from the opposite side, the distance is very limited; usually from 10 to 18 feet. At this distance the usual short

Economic 1902 Magic Lantern; Specifications--Continued.

distance lens would project too small a picture, and we have devised this objective “Economic No. 1” to overcome the difficulty; it is therefore recommended for instruments that are to be placed at the back of a theatre stage, behind the curtain in lodge rooms, etc. Economic Objective No. 1 will project a stereopticon picture about 9 feet in size at a distance of 10 feet between the curtain and instrument; a 13½ foot picture at 15 feet; an 18 foot picture at 20 feet.

Economic Objective No. 2.—For short distances, at any range up to 30 feet between curtain and instrument, projecting a picture whose size equals half of the distance; a 10 foot picture at 20 feet; a 12 foot picture at 24 feet; a 15 foot picture at 30 feet, etc.

Economic Objective No. 3.—Objective for middle range for use at any distance up to 60 feet, the size of the picture equaling about three-tenths of the distance between instrument and curtain; at 20 feet a 6 foot picture; at 30 feet a 9 foot picture; at 40 feet a 12 foot picture; at 60 feet an 18 foot picture, etc.

Economic Objective No. 4.—Objective for long range, to be used at any distance up to 80 feet, the size of the picture equalling one-fourth of the distance; at 40 feet a 10 foot picture; at 50 feet a 12 foot picture; at 60 feet a 15 foot picture, at 80 feet a 20 foot picture.

In ordering, customers will please specify which of the above objective lenses is desired with the instrument.

If it is desired to purchase more than one objective we quote the following prices on these separately; good only when bought with instrument:

Economic Objective No. 1, extra short distance, $\frac{1}{4}$ size mounting, price....\$4.50
Economic Objective No. 2, short distance objective, $\frac{1}{4}$ size mounting, price 4.50
Economic Objective No. 3, middle distance objective, $\frac{1}{4}$ size mounting, price 4.50
Economic Objective No. 4, long distance objective, $\frac{1}{4}$ size mounting, price. 4.50

THE ILLUMINANT.

The “Economic 1902” Magic Lantern will be furnished as per customer's selection with any of the following kinds of burners (See illustration):

No. 1. The Economic Calcium (lime-light) Burner. This is of standard make and guaranteed; brass, lacquered, capable of taking high or low pressure gases, has spring clip lime cup, with threaded support to allow of lime being turned, raised or lowered.

No. 2. The Economic Electric Arc Lamp. A well finished, compact, quick acting arc lamp; has adjustment for position, to enable operator to place it at any desired angle in the instrument; also adjustment for each arm that carries the carbon, to place these in line for direct current, or at an angle for alternating current.

Economic 1902 Magic Lantern; Specifications—Continued.

No. 3. **The Economic Incandescent Electric Lamp.** For lodges, small halls, etc., which do not require the brilliant lime or arc electric light. This lamp is specially constructed for lantern use, its coil concentrated into the smallest possible space and has high candle power. Provided with a supporting base, cords and plug and needs no resistance coil; can be screwed into the socket of any incandescent electric light chandelier or bracket. (In ordering incandescent outfit state whether for use with 110 or 220 volt direct current, or 52 or 104 alternating, and what system of lighting is used).

No. 4. **The Economic Acetylene Burner.** Provided with four tips and a highly polished reflector.

No. 5. **The Economic Oil Lamp.** A high power oil lamp, three wicks, each 2 inches wide, the lamp being specially constructed for Magic Lantern use.

No. 6. **Economic Welsbach Lamp.** For home use by photographic amateurs and house entertainment. Includes Welsbach burner, chimney, one mantle, metal base and support, eight feet of rubber tubing; used with ordinary house gas.

Customers will please specify which form of illuminant is desired. Those desiring to purchase more than one lamp can choose any other illuminant at the following prices:

No. 1. Economic Calcium Light Burner, as described, price.....	\$4.00
No. 2. Economic Electric Arc Lamp, as described, price.....	4.00
No. 3. Economic Incandescent Electric Lamp, as described, price.....	4.00
(With base, wires and plug).	
No. 4. Economic Acetylene Gas Burner, as described, price.....	4.00
No. 5. Economic Three-Wick Oil Lamp, as described, price.....	4.00
No. 6. Economic Welsbach Stand, Burner, Chimney, 8 feet of rubber tubing, etc., as described, price.....	4.00

(Note: When using long distance objective lenses, we advise the use of calcium or arc electric light, as these call for the highest illuminating power. The weaker lights, incandescent electric, acetylene, oil and Welsbach, do not give good results for long distance work).

ADDITIONAL APPARATUS.

Customers desiring to purchase acetylene generator with acetylene burner, or resistance coil (rheostat), with arc electric lamp, may add to outfit:

Best Acetylene Generator, price	\$8.00
Second Grade Acetylene Generator (not guaranteed), price.....	4.50
Economic Rheostat, price	4.00
Adjustable Edison Rheostat, price	10.00

Description of Challenge Magic Lantern

Model No. 700

ILLUSTRATED WITH VARIOUS FORMS OF LIGHT
ON THE FOLLOWING PAGES.

It consists of: 1. The body. 2. The condensing lenses. 3. The objective lenses. 4. The leather extension bellows. 5. The illuminant. 6. The carrying case. 7. The slide carrier. Weight with carrying case 12 pounds.

1. The **body** consists of the hood which encloses the lamp, the extension rods, and the skeleton frame, which are made of brass, and handsomely nickel plated. The front is cut out for standard half size objective, and has adapting ring to use quarter size if desired. The instrument has elevating screws in front supports; side door with catch.

2. The **condensing lenses** are two in number, of the best quality, $4\frac{1}{2}$ inches diameter, whose focus is adapted to project the maximum amount of light into the objective lens. They are set in heavy brass cells in such a way that they can be taken out at any time for cleaning. The cell is set in place outside of the hood that encloses the lamp, and never becomes heated.

3. The **objective lenses** are quarter size, of best quality, are composed of a series of achromatic lenses, finely finished, mounted in brass tubes, with rack and pinion for fine adjustment in focusing picture. The lens is provided with a leather cap to protect it from dust and damage.

4. The **leather extension bellows** is the latest improved medium for enclosing the light between the condensing lenses and the objective, packing into a space of one inch when closed, opening out to an extreme of seven inches when necessary to obtain a good focus on the screen. It affords a great saving in weight.

5. The **illuminant** may be either oil, acetylene, incandescent electric, arc electric or lime light, as described in the following pages; the **burners are interchangeable in the lantern**. The burner support consists of a nickel-plated brass saddle, with a rod, to which is clamped the burner. The saddle fits upon a pair of extension rods in the body.

6. The **carrying case** is light in weight, and its dimensions are 18x10x7.

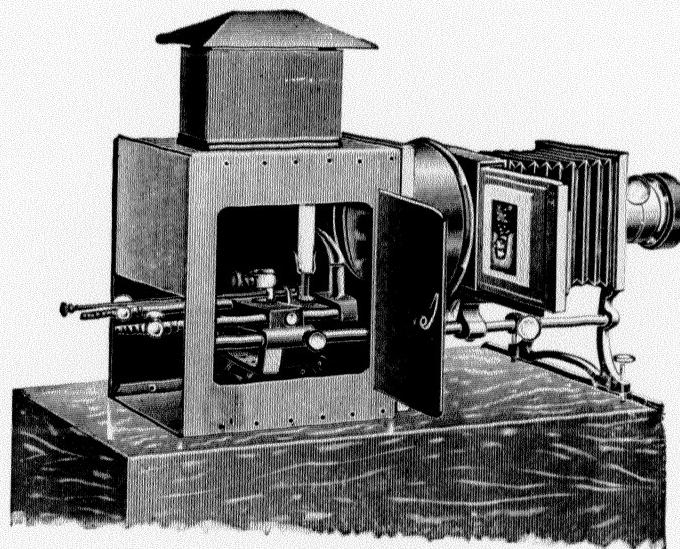
7. The **sliding slide carrier** is included in the outfit without extra charge. It is placed in the opening between condensing lenses and bellows at the beginning of an entertainment and left until the close. There is a slider in the carrier which holds two slides and moves from right to left and back. While one view is being projected on the screen the other is being changed, and in a fraction of a second the new view is in place and the first is changed. There is at no time a white disc on the screen.

The various kinds of illuminants with which the No. 700 model is listed on the following pages do not alter the size of the picture projected on the curtain by the instrument. With any form of light the following table applies:

- At 10 feet between instrument and curtain, the size of picture is 5 feet.
- At 16 feet between instrument and curtain the size of picture is 8 feet.
- At 20 feet between instrument and curtain the size of picture is 10 feet.
- At 30 feet between instrument and curtain the size of picture is 15 feet.
- At 40 feet between instrument and curtain the size of picture is 20 feet.

The difference lies in the brilliancy of the picture upon the curtain; it becomes brighter in the following order: Oil, incandescent electric, acetylene, calcium, arc electric light. As the size of the picture increases and the illumination decreases in proportion to the distance between the instrument and the curtain, it follows that the weaker illumination reaches its furthest possible distance and its maximum size of picture before the more powerful kinds of light. Oil light should not be taxed beyond an 8 or 10 foot picture; acetylene, a 15-foot view; calcium, a 20-foot, etc.

If the picture projected by the No. 700 model is too large for any given distance, a longer distance objective may be employed, whose projection equals three-tenths of the distance, with any form of illuminant except oil. This will cost \$13 extra, or, if substituted in place of the regular quarter size, \$6.50 extra.

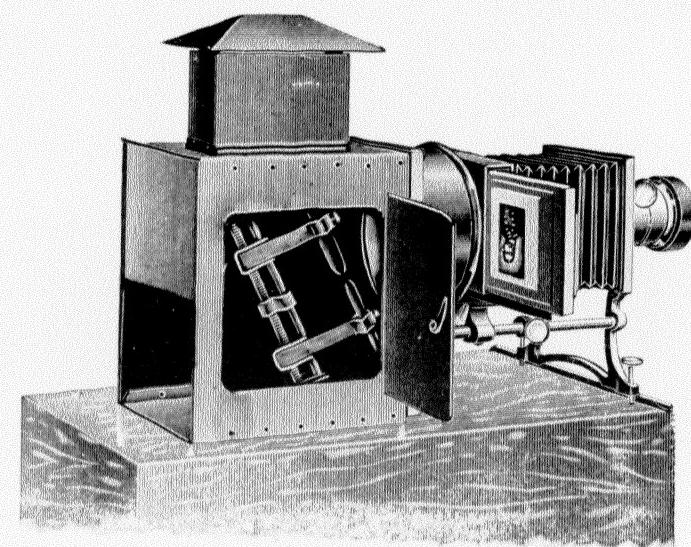


No. 700B. The Challenge Interchangeable Magic Lantern

WITH CALCIUM LIGHT JET FOR GASES.

Weight, with carrying case..... 14½ pounds
Price, complete \$39.00

Instrument No. 700B consists of Model No. 700, as described; a calcium light burner, best quality, with mechanical movement for turning limes from the rear, and stop-cocks; the burner nickel plated and handsomely finished. Best quality quarter-size objective, slide carrier, 4½-inch condensing lenses.



No. 700C. The Challenge Interchangeable Magic Lantern.

With hand feed arc electric lamp.

Weight, without rheostat	14½ pounds
Price, without rheostat	\$35.00
Rheostat extra	5.00
Edison rheostat, adjustable, extra	10.00

The hand feed arc electric lamp included with outfit No. 700C is adjustable for direct or alternating current and for perpendicular or slanting position. Body of the instrument is No. 700 previously described.

Challenge Dissolving View Apparatus

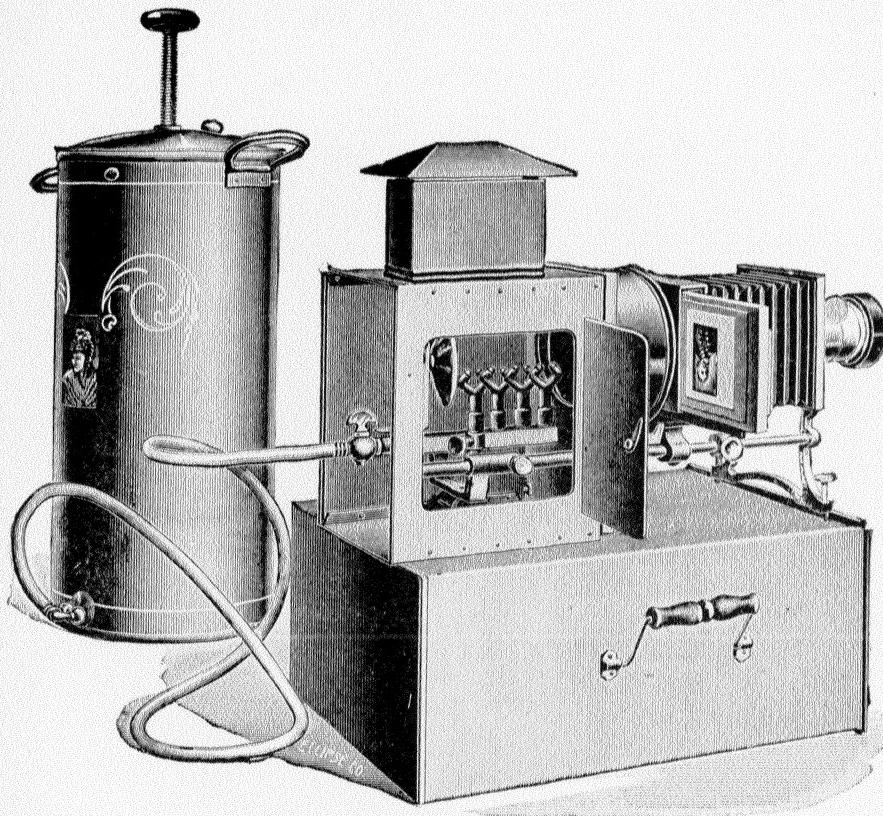
No. 700H

FOR ACETYLENE LIGHT.

Price \$85.00

With this outfit the same effects may be obtained as with a dissolving calcium light lantern, by means of a dissolving key for the acetylene gas, which turns the stream of gas from one lantern into the other. Lantern bodies are mounted side by side.

Challenge Acetylene Dissolving View Outfit No. 700H includes: Two No. 700 Magic lantern bodies; two quarter size achromatic objectives with rack and pinion; two pairs condensing lenses, best quality, 4½ inches in diameter; two best acetylene burners; one Challenge acetylene gas generator; nine feet of rubber tubing; one dissolving key for acetylene gas; one base board to which instruments are attached; one carrying case.



No. 700F. CHALLENGE MAGIC LANTERN.

With Acetylene Light Burner and Generator.

Price.....\$45.00

This outfit includes the apparatus for the making of acetylene gas, the best acetylene gas burner, lantern No. 700; the whole complete for traveling exhibitors, for use in churches, halls, lodge rooms, and is altogether the most practical outfit for lecturers whose work does not call for the most powerful forms of light. The outfit includes items as shown in cut:

The Challenge Magic Lantern No. 700, one best acetylene burner, eight tips for four flames, one Challenge acetylene gas generator, four feet of rubber tubing to connect generator with the burner.

The acetylene burner is the most powerful of its kind on the market, is provided with stop cock and reflector of various sizes as desired.

This outfit will project a picture 15 feet square at a distance from the curtain of 30 feet.

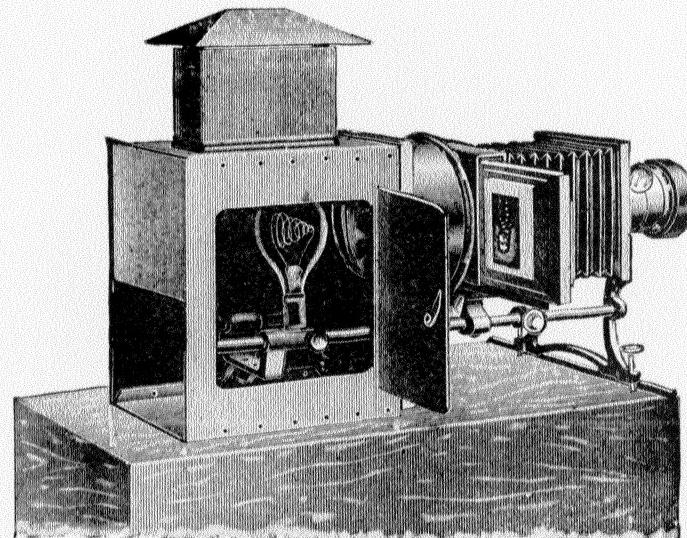
At an addition of \$6.50 to price, the outfit No. 700 F may be had with a half size instead of a quarter size objective. With the half size objective it projects a view 15 feet in size at a distance of 50 feet from the curtain.

We have sold many of the above generators during the past three years and have found them to give universal satisfaction. They are safe, light in weight, compact and easily manipulated. Warranted to be the most satisfactory acetylene generator on the market for lantern work.

Challenge Magic Lantern No. 700 L.

With New Improved High Power Incandescent Electric Light. No Rheostat Required.

Price, complete \$38.00



After many years of experimentation in an effort to produce an incandescent electric bulb that would give high illuminating power for projection work, and without the use of resistance coils, we have at last combined all the elements that are required for this work in an incandescent bulb that is eminently satisfactory in every respect. Its chief merits are:

1. It furnishes a brilliant light, due to its peculiar construction. It is a law of optics that the brightness of the picture projected on a curtain by a magic lantern is dependent not only upon the candle power of the flame, but also on its compactness. Taking two flames of equal candle power, the one concentrated at a point, the other spreading into a large area, the small flame will project the brighter picture. This principle has been applied to the incandescent lamp shown in above illustration, whose filament is wound into the smallest possible space, thereby multiplying its illuminating power many times.

2. Incandescent bulbs have hitherto been made of high candle power for lantern work but the light filament retained the spreading form of the ordinary bulbs, and much of the light was lost when projecting a picture on the curtain. The old style also required the use of a rheostat or resistance coil and was expensive as well as short lived.

Our new incandescent electric bulb is used without a resistance coil, has a long life, and is connected by means of an ordinary plug and wire directly with the socket of the chandelier. No extra apparatus is necessary.

The lantern is shipped complete with wire and plug, ready to be inserted into the socket of your chandelier.

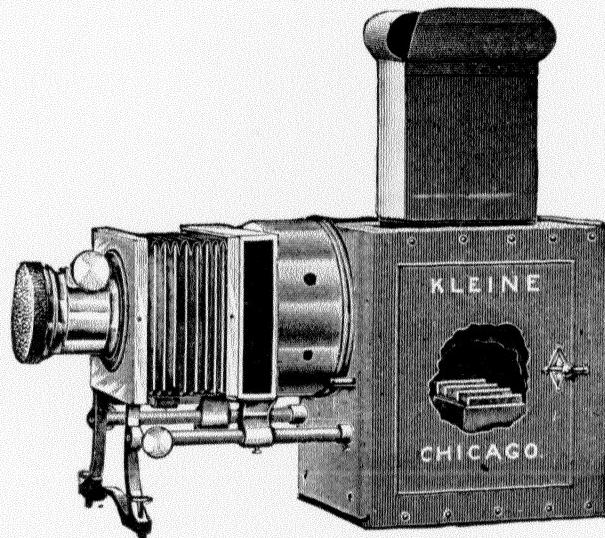
In ordering, state if instrument is to be used with direct or alternating current.

This instrument is particularly adapted for use in lodge and club rooms, Sunday schools and parlors where a bright picture is desired and no expert lanternist is present to operate an arc electric or calcium light.

Price of our Challenge Magic Lantern, No. 700L, with high power incandescent electric burner, as shown in illustration above, 10 feet of wire and plug, with quarter-size best objective, projecting a clear 10-foot picture at a distance of 20 feet, with carrying case..... \$38.00

The Challenge Interchangeable Light Magic Lantern No. 700A

Price \$30.00.



Including 4-Wick Kerosene Lamp, Wicks 2 inches wide; Lamp has Extension Chimney.

Since the introduction of acetylene light magic lanterns the use of kerosene light lanterns has decreased greatly, because the acetylene is almost as cheaply and easily operated as the oil. As there are some lanternists, however, who prefer to use a coal oil illuminant on account of its simplicity and the universal sale of the oil, we list our No. 700 model with this form of light.

Exhibitors that purchase the oil lamp with our No. 700 model can at any future time buy a burner of another form, for acetylene, arc or incandescent, electric or lime light, and use it in the instrument. Such change involves no additional expense except that of the burner.

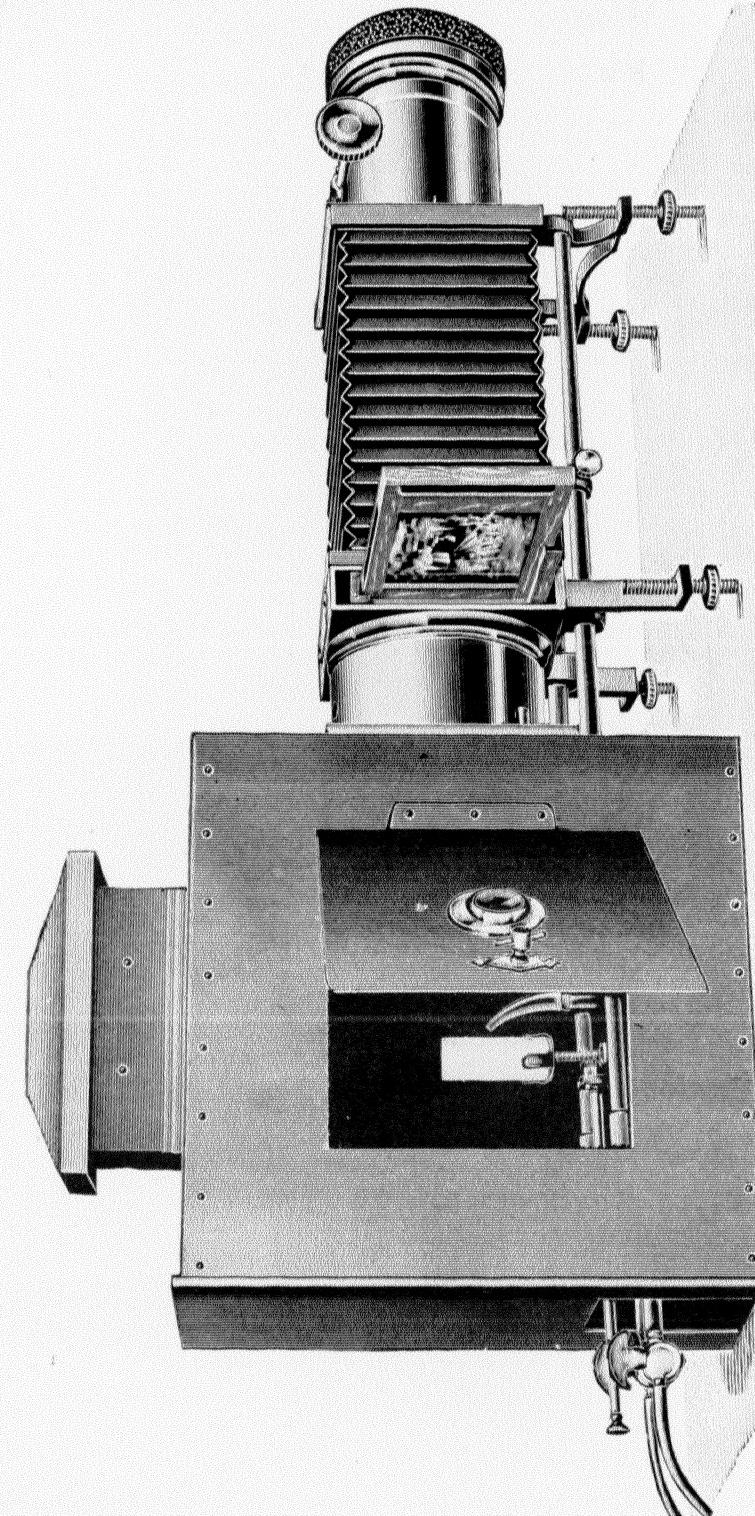
Note.—Exhibitors are advised to purchase the best oil that can be obtained, such as is used for parlor lamps, 150 degree test if possible. A small piece of camphor when added to poor oil will improve it.

Challenge Dissolving View Apparatus No. 700G.

For Oil Light.

Price \$69.00.

Consisting of two No. 700A Magic lantern bodies set side by side; two quarter size achromatic objectives with rack and pinion; two pairs condensing lenses, best quality, 4½ inches in diameter; two French 4-wick oil lamps; one universal dissolver; one base board to which instrument is attached for rigidity; one carrying case.



No. 100. The "Supreme" Magic Lantern. Adapted for standard objectives to project at any distance from 5 to 150 feet, and for any form of illuminant.

No. 100. The Supreme Magic Lantern.

(See illustration.)

We have elsewhere listed in this catalogue our Economic 1902 Magic lantern to answer the demand for the cheapest possible instrument that will do good work with various forms of light, and objective lenses for various distances, made up in economical form. On the other hand, we list our No. 100 Supreme Magic Lantern for the benefit of those exhibitors who wish the very best instrument which can be constructed without economizing in the material used or the appliances included.

The Supreme Magic lantern when properly equipped with the necessary lenses can be used for any work of which a magic lantern is capable.

It is provided with a large bellows, 14 inch extension, in order to adapt the instrument for projection with any standard size objective. The front plate is large and is provided with a brass collar threaded to take the largest 4-4 size objective. In order to adapt the instrument for use with the 2-3, 1-2, 1-4 or extra short distance lens, we provide a nest of adapting rings which fit into each other and reduce the opening of the lantern to fit any of the standard objectives.

The difference between the standard objectives of best quality that are used for various distances and the economic objectives is this: The latter are mounted irrespective of focus in the small size mounting; namely, the 1-4 size; that is to say the 4-4 objectives in the Economic style, as well as the intermediate lenses, are of the same size, that of the 1-4 size objective; the best quality standard objectives increase in size as the focus lengthens for longer distances. There is necessarily a great difference between the values of lenses of the same focus in the two styles. An examination of illustration on page 49 will better enable the reader to understand this point. Although our Economic series is handsomely finished and the lenses well ground, we are enabled to sell them at \$4.50 each for three foci. The large standard size 4-4 objective is worth \$29.00, the 2-3 size \$20.00, the 1-2 size \$13.00.

The Supreme Magic Lantern, therefore, considering our purpose in placing it upon the market, should be used with the best grade of lenses only.

The illuminants to be used with the Supreme are either calcium light or the Arc Electric. It serves no special purpose if weaker lights are to be used, such as the acetylene, incandescent electric or oil, which will produce equally good results with a cheaper form of lantern. When purchased with arc electric lamp the Supreme Magic Lantern is provided with our right angle (90 degree) lamp; if ordered with calcium light burner it is equipped with our best quality oxy-hydrogen jet. The instrument is shipped in a handsome carrying case.

PRICE OF SUPREME MAGIC LANTERN.

No. 100. Supreme Magic Lantern, provided with longest distance objective, 4-4 size, best quality, to project a 30-foot picture at 150 feet distance, or smaller pictures at lesser distances; best quality lime light burner, 8 feet rubber tubing, best quality condensing lenses 4½ inches in diameter, handsomely mounted, with carrying case. Price \$75.00.

No. 100A. The same as No. 100, but substituting a 90-degree arc electric lamp for lime light burner and rubber tubing. Price \$75.00.

No. 100B. The same as No. 100, but substituting a 2-3 size objective in place of the 4-4 size, which projects a 30-foot picture at a distance of 120 feet, and smaller pictures at lesser distances. Price \$64.00.

No. 100C. The same as No. 100A, but substituting a 2-3 size objective in place of the 4-4. Price \$64.00.

No. 100D. The same as No. 100, but equipped with best quality 1-2 size objective in place of the 4-4. Price \$57.00.

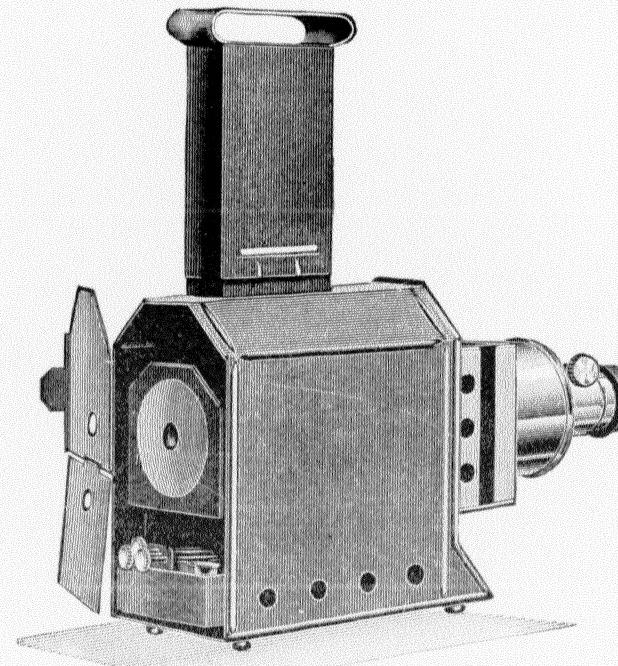
A CHEAP MAGIC LANTERN.

No. 820.

For Lodges, Sunday Schools, etc.

We are constantly in receipt of letters from Sunday and public school teachers, secret societies and lecturers in small halls who would use the Magic Lantern in their work but find themselves debarred by the cost of a good instrument, and cannot do efficient work with the cheap instruments that have been upon the market. For the benefit of these, we have reduced the price of our No. 820 Magic Lantern practically to cost.

The instrument is an efficient oil-light lantern, which projects an eight-foot picture at a distance of fifteen feet from the screen.



Price \$12.00

The Challenge Magic Lantern No. 820 includes: 1, the body; 2, the condensing lenses; 3, the objective lenses; 4, a continuous slide carrier; 5, an oil lamp for projection; 6, a carrying case.

1. **The body.** This is made of Russia iron and encloses the three-wick lamp; has double hinged door.

2. **The condensing lenses** are two in number, of fine quality, four inches in diameter, and solidly mounted in brass.

3. **The objective lenses** are achromatic and mounted in brass tubes, with rack and pinion, for fine adjustment.

4. **The continuous slide carrier** is placed in the lantern at the beginning of a lecture and is not removed during the evening. Slides are placed in this one after another and there is never a white disc on the screen.

5. **The oil lamp** has three wicks, each wick two inches long, and furnishes a brilliant light.

6. **The carrying case** is made of wood and provided with handle.

THE DISSOLVING STEREOPTICON.

The dissolving stereopticon offers the manufacturer of projecting apparatus his best opportunity for the display of mechanical skill applied to optical science. With this instrument are produced the finest effects upon a curtain that can be obtained with stereopticon views.

The difference between a magic lantern (sometimes improperly called a stereopticon) and a dissolving stereopticon consists in this: the latter is composed of two magic lanterns the one an exact duplicate of the other, provided with sets of objective lenses that are absolutely alike in focus for the two bodies; so that the image of the views from both bodies is of the same size when projected on the curtain.

These two bodies of the stereopticon are mounted one above the other, but not rigidly. As it is necessary that the views projected by the two bodies fall upon the same spot upon the curtain, there must be a means of inclining the upper lantern; the degree of inclination varying with the distance; also a means of registering right and left. Both of these adjustments are provided with the stereopticons of our manufacture; they are substantially constructed, and by the aid of clamping screws, perfect rigidity can be obtained after adjustments have been made.

A dissolving stereopticon involves also, the use of two lime-light burners of equal power, which must be under control independently of each other.

The true dissolving effect lies in the gradual fading away of the one view and the coming out of the other; this can only be obtained by darkening and intensifying the light in each body alternately. It is therefore necessary to employ some means of directing the lime light gases from one burner of the stereopticon into the other. This is accomplished by means of a dissolving key, which receives the gases, oxygen and hydrogen, from the cylinders, and by the use of its lever and plug directs the flow into either burner.

Dissolving keys are of two kinds, high pressure and low pressure. The high pressure key should be used when the operator is taking his gas from two cylinders, charged by a calcium light company under high pres-

sure. The low pressure key is used when gases are obtained from the operator's gas-making outfit with ether or gasoline saturator.

The most satisfactory results are obtained from the use of a high pressure key, with gases in tanks, furnished by the calcium light companies. With this key it is possible to send the necessary flow of gases into both burners at the same time, which is necessary for the production of many fine dissolving effects.

A high pressure key must be perfect in construction, or it is worse than useless. The greatest care is taken in the manufacture of the key which we include with our outfits; it is patented and its construction is such as to give perfect satisfaction.

The best known operators and lecturers, who have made fortunes in the lecture field, use the dissolving stereopticon with lime light, taking the gases from tanks. John L. Stoddard, Burton Holmes, Dr. H. C. Crary and every other lecturer of note, employ this form of apparatus; it is the accepted standard.

The electric light with a stereopticon does not produce a genuine dissolving effect. It is impossible to control the current in such a way as to swing the light from one lantern to the other instantaneously; therefore both lights are kept burning during an exhibition, the change from one to the other being accomplished by means of a mechanical disposer, which shuts out the lights alternately, but abruptly; there is no fading away of one view into the other.

The inquirer who is investigating the question of dissolving stereopticons is warned against the fatal error of buying a poorly made instrument without the necessary appliances and high grade lenses for good work. A poor instrument of this character is not as desirable as a single magic lantern with a good slide carrier.

There are instruments on the market for sale by mail order houses and other "cheapest on earth" firms, which are constructed entirely with a view to economy of cost, that are totally unfit to do the work that is required of them. Intelligent buyers will readily understand that a firm which deals in shoes, buggies, shirts, hats and groceries,

cannot be as well able to handle scientific instruments of this kind as business houses that make a specialty of this line of goods.

In order to save a few dollars in the cost of constructing such an instrument, there are heavy sacrifices made in their efficiency and while illustrations of such instruments may look very well on paper, their flimsy construction will at once condemn them to an experienced lanternist. Printer's ink and paper are patient, and glowing descriptions in catalogues are more easily written than it is possible to produce a first-class stereopticon effect with a third rate instrument.

There is a recognized standard applied to objective lenses among reliable houses which is not followed by all of the dealers in these instruments. The standard size lenses are the best commercial lenses for lantern work and are costly in the larger sizes, which project at long distances. Cheap substitutes for these have been placed on the market under the same description, and the buyer who is not posted is apt to be misled. Standard $\frac{1}{2}$ or $\frac{3}{4}$ size Objectives which are worth \$14.50 and \$21.00 respectively are sometimes supplanted by a cheap substitute which has less than one-third their value. The cheaper lenses give poor definition and much less illumination on the curtain than the genuine objective. This applies to other sizes of objectives as well. Our dissolving stereopticon No. 500 is provided with best quality Objectives. This model is the result of many years' experience in the manufacture of instruments of projection, is finely finished, substantially made, the best materials used throughout.

This model is in use among many of the best known lecturers and theatrical men throughout the country and we guarantee it to be faultless in every particular.

There are two main advantages derived from the use of a dissolving stereopticon not offered by a single Magic Lantern; these are the dissolving effect produced by the fading of one picture into the next and the capacity for projecting two companion or complementary pictures upon the curtain at the same time.

The use of our sliding carrier with a single instrument, makes a rapid change from one view to the next, without leaving a white disc on the curtain, but in making the change the picture does not fade away as it slides from the field of vision to the right or left,

the next picture sliding into place from the opposite side in the same way. In using a dissolving stereopticon, however, the view does not slide out of place, but fades away, the other next appearing in its place without any mechanical change being apparent.

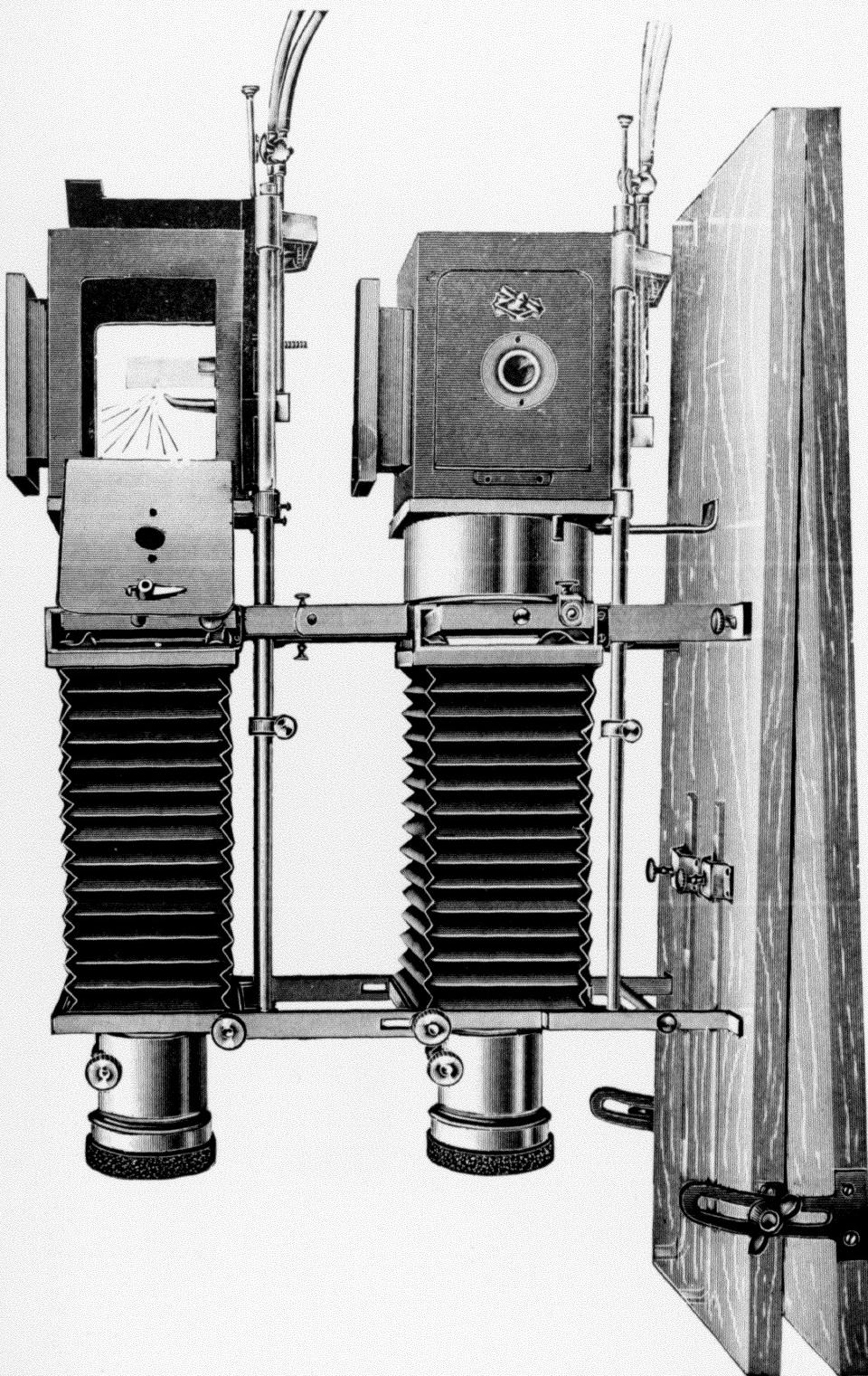
This will be readily understood if we consider the manner of operating; there being two lantern bodies, each complete with a lime light burner and lenses, each burner connected with a dissolving key by means of rubber tubing; by swinging the handle of the key to the right and left, the gas is alternately supplied to each burner. The burner that is being fed gives a brilliant light, which projects the view that is in place upon the curtain; while this picture is upon the curtain, the view in the other lantern is changed, the handle of the dissolving key is swung to the other side; the bright light dies out and the other burner receives the gas and projects the new view.

Both lanterns are sometimes used at the same time with sets of views that supplement each other, and these form many of the handsomest sets of slides that are made for the stereopticon. This is accomplished by setting the handle of the high pressure dissolving key half way, that is to say in the center, allowing an equal flow of gas to both burners.

For instance, in the set "Rock of Ages" there is a view of the ocean with a projecting rock, on which rests a cross; while this is on the curtain, the operator places a view of a girl looking upward in the other lantern, places the handle of the dissolving key in the center; the first picture of the ocean remains on the curtain and as the gases are fed to the other burner, the figure of the girl gradually appears, becoming brighter and brighter, until it stands out boldly, clinging to the cross. Thus two views projected simultaneously, appear upon the curtain as one.

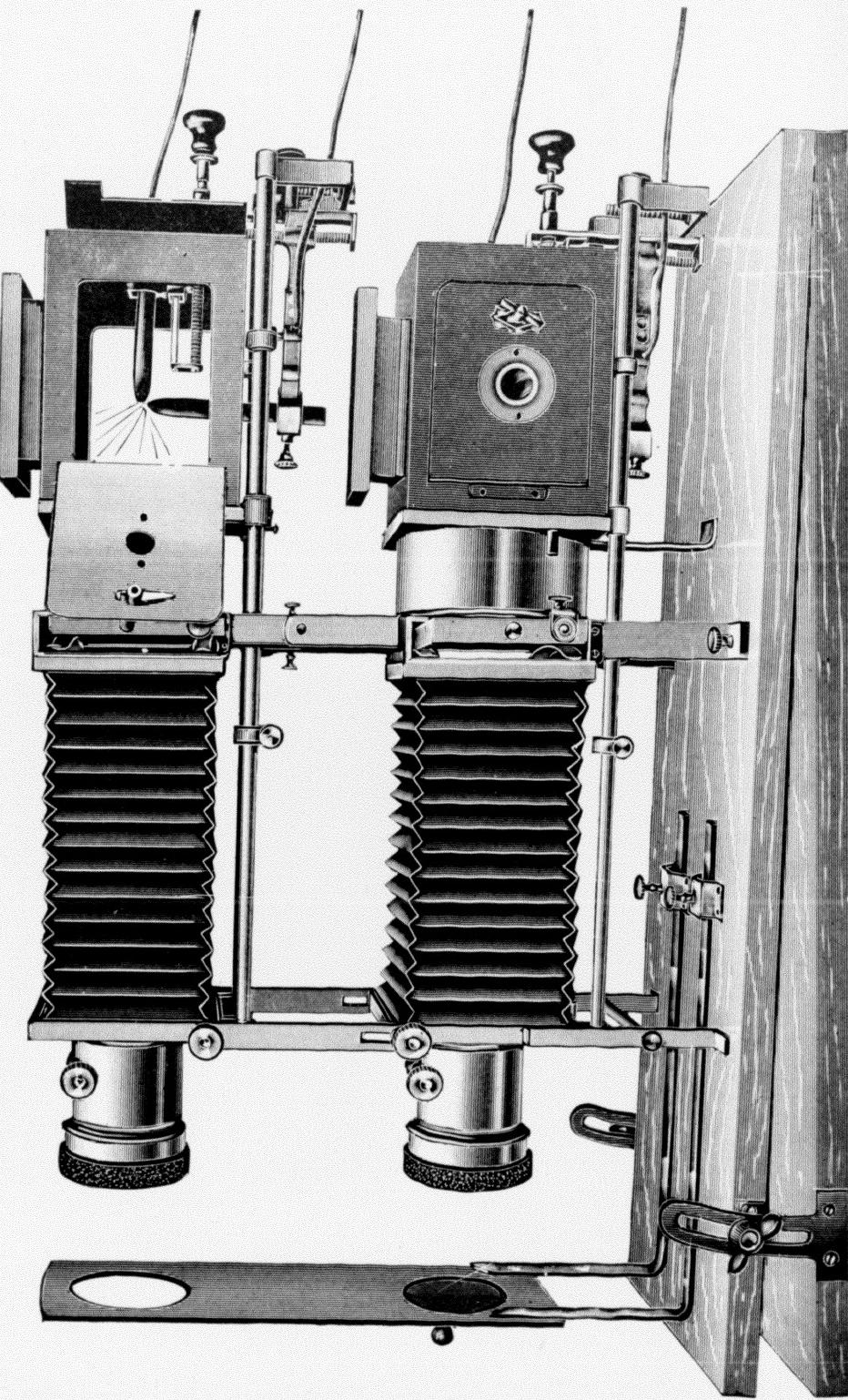
Many other beautiful effects are produced with a dissolving stereopticon, that are impossible with a single instrument. For instance, the operator may take three views of a beautiful landscape and have one colored as a day scene, another twilight, and the third as a night view. By dissolving from one lantern to the other, the effect will be that of a change of color, the view remaining apparently on the curtain; being identical, the change is not apparent.

In producing effects of this kind, it is necessary that the instrument and lenses be of perfect construction. If the two bodies of the stereopticon are not accurately constructed, or the lenses poorly matched, ludicrous effects result; as when the figure of the girl in the Rock of Ages set is projected out of place and is left clinging to nothing, away from the cross, in mid-air. For this reason we give especial care to the manufacture of these instruments.



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Challenge Stereopticon No. 500, 1902 Model. For Lime Light.



39

Challenge Stereopticon No. 500 K, 1902 Model. For Electric Light.

The Challenge Stereopticon No. 500

1902 MODEL

For use with Calcium Light Company's gases in tanks under high pressure.

Price, without tanks.....\$180.00

The condensing lenses are $4\frac{1}{2}$ inches in diameter, best quality, mounted in brass, and can easily be taken out for cleaning.

The objective lenses are achromatic, standard sizes and best quality, mounted in brass, nickel plated, with rack and pinion for focusing. Will project a picture of any size from five to thirty feet at a distance of ten to ninety feet from curtain.

The lime light jets are of our latest pattern, with spring clamps to hold the cylinder of lime, stop cocks, mechanical lime movement, elevating and clamping screws. The jet is easily adjusted and rigidly held in place when clamped.

The extension for focusing is obtained by means of collapsible leather bellows. The bellows are vastly superior to the old style metal extension tubes, saving many pounds in weight and making the lantern more compact for transportation. The front support, which bears the weight of the objectives, moves forward when the instrument is being focused and is always immediately beneath the weight which it bears. This prevents the sagging of the objectives during the lecture, and when clamped the instrument remains rigid.

In detail the outfit consists of:

- Two magic lantern bodies, with extension and opening for 4-4 objectives.
- Two quarter-size best quality objective lenses.
- Two half-size best quality objective lenses.
- Two adapting rings, reducing objective opening from 4-4 to 1-2.
- Two adapting rings, reducing objective opening from 1-2 to 1-4.
- Two pairs of best quality condensing lenses, $4\frac{1}{2}$ inches in diameter.
- Two best lime-light jets.
- One high-pressure dissolving key.
- Twelve feet rubber tubing, for connections.
- Two slide carriers.
- One carrying case.

CHALLENGE STEREOPTICON No. 500 K.

1902 Model for Electric Light.

Price \$180.00.

The same in style and equipment as No. 500, but omits: High pressure key, lime light burners and rubber tubing; using in their place two right angle arc electric lamps, two Edison rheostats, and mechanical dissolver.

The No. 500 Dissolving Stereopticon.

Our old No. 500 model dissolving stereopticon became the standard many years ago, and year by year its salient features have undergone an evolution; the 1902 model embodies many features not found in earlier models or those of other make. Its universal adaptability can be found in no other instrument on the market; most important being the ease with which any objective lens of standard size can be attached. This makes it possible to use the machine at any distance from the curtain for which objective lenses are made.

The fronts of the No. 500 are cut out for the largest size of objective, the 4-4 (which projects a picture whose size equals one-fifth of the distance), and there are permanently fastened to the bodies objective flanges for the 4-4 lenses; we furnish also adapting collars which fit into the 4-4 flange, to reduce the opening to 2-3; other adaptors from 2-3 to 1-2; others from 1-2 to 1-4. The bellows is large, and long enough to accept the longest focus standard objective lenses.

With the proper objectives this instrument will project a thirty-foot picture at 150 feet distance; or a ten foot picture at 12 feet, and various sizes between these extremes.

When we speak of standard 4-4, 2-3 or 1-2 size objectives, we mean those lenses which are mounted in large fittings, such as have been in use many years; not the lenses of long focus, mounted in small tubes, which are very much cheaper and lessen both light and definition.

To emphasize the adaptability of our No. 500 stereopticon, we mention the following objectives which can be used with it at various distances and cover the entire range of stereopticon work:

At 150 feet between stereopticon and curtain—

4-4 objective, projects a 30-foot picture, sharp, bright and clear to the edge.

At 120 feet—

4-4 objective projects a 24-foot picture.
2-3 objective projects a 30-foot picture.

At 100 feet—

4-4 objective projects a 20-foot picture.
2-3 objective projects a 25-foot picture.
1-2 objective projects a 30-foot picture.

At 80 Feet—

4-4 objective projects a 16-foot picture.
2-3 objective projects a 20-foot picture.
1-2 objective projects a 24-foot picture.

At 60 feet—

4-4 objective projects a 12-foot picture.
2-3 objective projects a 15-foot picture.
1-2 objective projects an 18-foot picture.

At 50 feet—

4-4 objective projects a 10-foot picture.
2-3 objective projects a 13-foot picture.
1-2 objective projects a 15-foot picture.
1-4 objective projects a 25-foot picture.

The No. 500 Dissolving Stereopticon — Continued.

At 40 feet—

- 4-4 objective projects an 8-foot picture.
- 2-3 objective projects a 10-foot picture.
- 1-2 objective projects a 12-foot picture.
- 1-4 objective projects a 20-foot picture.

At 30 feet—

- 2-3 objective projects a 7½-foot picture.
- 1-2 objective projects a 9-foot picture.
- 1-4 objective projects a 15-foot picture.
- Extra short distance objective projects a 25-foot picture.

At 20 feet—

- 1-2 objective projects a 6-foot picture.
- 1-4 objective projects a 10-foot picture.
- Extra short distance objective projects a 17-foot picture.

At 10 feet—

- 1-4 objective projects a 5-foot picture.
- Extra short distance objective projects a 9-foot picture.

We do not include with the outfit No. 500 all of these lenses, as few exhibitors have use for all of them. The most universal are the 1-2 and 1-4 sizes, which are included at price quoted; but exhibitors sometimes feel the need of very long or very short distance lenses, which can then be added at will, merely for the price of the lenses, without any change in the instrument.

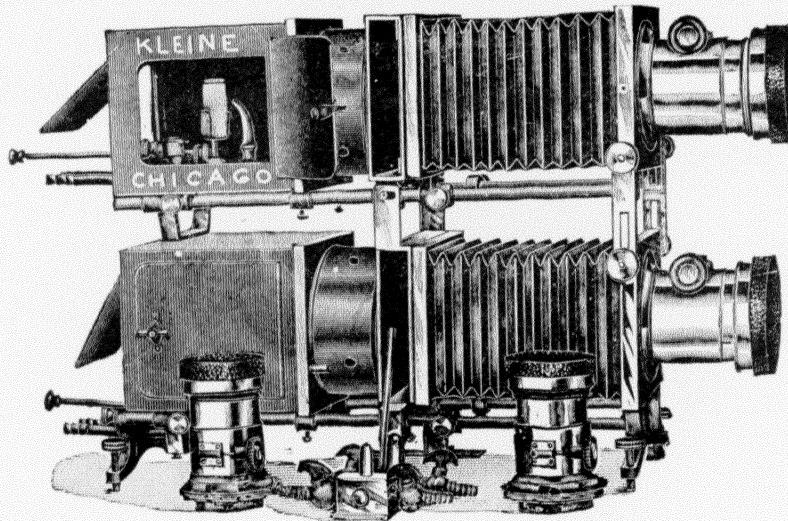
The objectives which we use with this instrument are now specially made for us by the Bausch & Lomb Optical Co., and are not to be confounded with cheaper grades. If desired, we furnish Darlot objectives in place of the American at same price.

Value of objectives other than those listed with the No. 500; all of these can be used with the instrument:

1 pair of 4-4 objectives for long distance.....	\$58.00
1 pair of 2-3 objectives for long distance.....	40.00
1 pair of extra short distance lenses.....	14.00

Another new feature of great practical benefit which has been added to stereopticon No. 500 is the new style baseboard, with elevation. As shown in illustration, there are used two heavy boards of black walnut or cherry, hinged at one end. Near the other end of the lower board are two heavy brass arcs, with slot; at this point are fastened two projections to the upper board, which play up and down in the arc; the lantern being placed upon the upper board, it may be inclined at any angle, upward or downward, the projections being clamped to the arc by means of a heavy brass thumb-screw when in proper position.

In this instrument, as in all our Challenge series of lanterns, the rings in which the condensing lenses are mounted are placed between the light box and the slide holder, so that if the lenses should require cleaning, either during or before a lecture, these rings can be lifted out of place and returned without disturbing the remainder of the lantern. This may be done while the light is burning.



The CHALLENGE STEREOPTICON

No. 400

The Challenge Stereopticon No. 400 is of oxidized brass. The jets have mechanical lime movement. Object glasses are of standard make and have two sets of achromatic lenses, with adjustment for focusing. The condensing lenses are 4½ inches in diameter and are the same as those used in our No. 500 Stereopticon. The bellows are made of leather and warranted. We can especially recommend the No. 400 to those who wish to purchase a first-class dissolving apparatus at a low price. The instrument is substantially made and will bear rough usage.

CHALLENGE STEREOPTICON No. 400

For projecting dissolving views at short range.

PRICE \$95.00

Consisting of :

The body.

Two quarter-size objective lenses.

Two pairs of best quality condensing lenses 4½ inches in diameter.

Two lime light jets with mechanical lime movement.

One low pressure dissolving key.

Twelve feet rubber tubing.

Two slide carriers.

One carrying case.

No. 400 will project a picture 10 feet in size at a distance of 20 feet from the curtain; a picture 20 feet in size at a distance of 40 feet from the curtain.

At intermediate distances the picture will be of a proportionate size.

Dissolving
Stereopticon
Outfit
No. 26

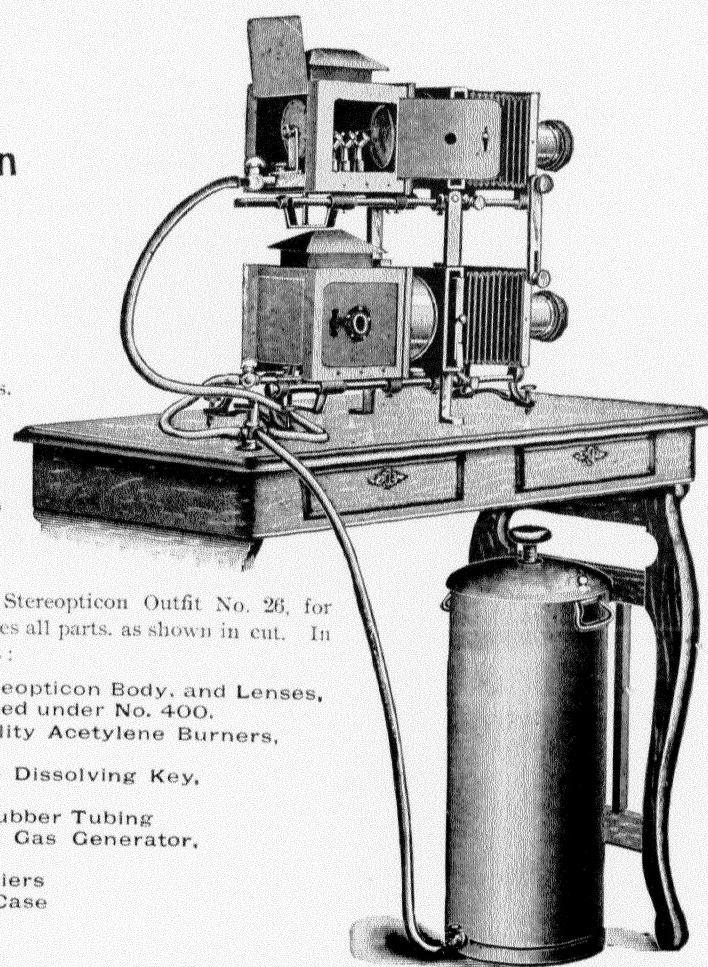
For Acetylene Gas.

PRICE

Complete.....\$98.00

The Dissolving Stereopticon Outfit No. 26, for acetylene gas, includes all parts, as shown in cut. In detail, it is as follows:

1. Challenge Stereopticon Body, and Lenses, as described under No. 400.
2. Two Best Quality Acetylene Burners,
3. One Acetylene Dissolving Key,
4. Twelve Feet Rubber Tubing
5. One Acetylene Gas Generator,
6. Two Slide Carriers
7. One Carrying Case



WE MANUFACTURE
MAGIC LANTERNS, STEREOPTICONS
AND SUPPLIES

ARE SELLING AGENTS FOR THE
EDISON MANUFACTURING CO.'S
PROJECTING KINETOSCOPES
and FILMS, THE PHONOGRAPH
RECORDS AND SUPPLIES

No. 300. Economic 1902 Model Dissolving Stereopticon.

(See Illustration.)

Economic 1902 Model Dissolving Stereopticon has been designed with a view to supplying the demand for a cheap instrument, which will at the same time accomplish the desired results. It has long extension bellows and can be used with objectives of any focus from short distance up to the 4-4 focus in $\frac{1}{4}$ size mountings. It is well adapted for use with the 1902 Model Economic Edison Kinetoscope mechanism for moving pictures.

It is provided with two pairs of $4\frac{1}{2}$ -inch condensing lenses in mountings which can be detached from the lantern for cleaning at any time desired, even after the light is burning.

The instrument is equipped with our Economic calcium light burner or arc electric lamp or acetylene burner.

PRICES.

Price of No. 300 Economic 1902 Model Dissolving Stereopticon, equipped with one pair $\frac{1}{4}$ -size objective lenses, two lime light burners or two acetylene light burners or two electric arc lamps, two dissolving slide carriers, two pairs $4\frac{1}{2}$ -inch condensing lenses, well made canvas telescope case with reinforced corners, wood strips on the bottom, with straps and handle for carrying. Complete.....\$50.00

According to the outfit desired, customers may add from the following list at prices quoted:

Two economic rheostats for electric current, at \$4.00 each.....	\$8.00
Economic mechanical dissolver for electric current.....	4.00
Two knife switches, at 40 cents each.....	.80
One acetylene gas generator No. 160.....	8.00
One acetylene dissolving key	4.50
One low pressure dissolving key for calcium light.....	9.00
One high pressure dissolving key for using the gases from calcite light companies' tanks	30.00

The instrument may be ordered with objectives in addition to $\frac{1}{4}$ -size focus as follows:

One pair $\frac{1}{2}$ -size focus in $\frac{1}{4}$ -size mounting.....	\$9.00
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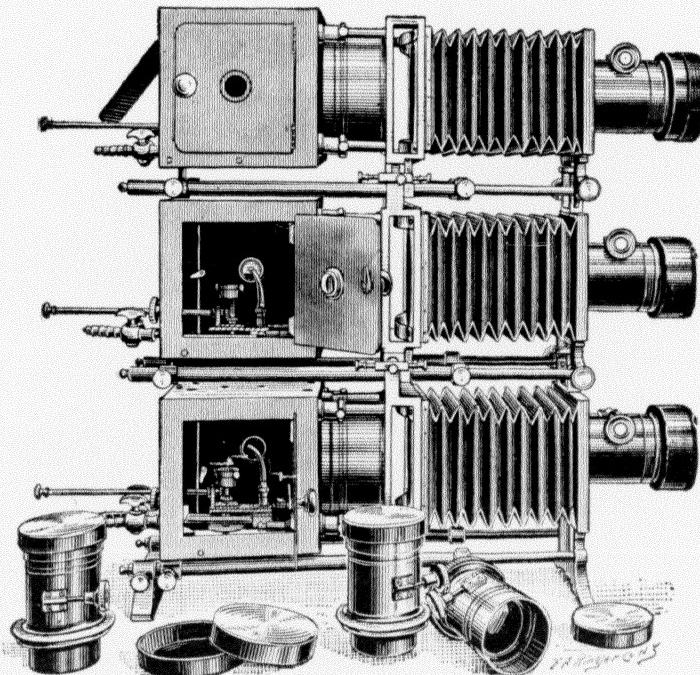
One pair of $\frac{1}{4}$ focus in $\frac{1}{4}$ -size mounting.....	12.00
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If $\frac{1}{4}$ -size objectives are not desired deduct \$9.00 from the price.

No. 300A. Dissolving Stereopticon with Moving Picture Attachment.

Price of No. 300 1902 Model Dissolving Stereopticon, equipped with the No. 50A 1902 Model Edison Economic Kinetoscope Mechanism for Moving Pictures; the whole apparatus complete for dissolving views and moving pictures.....\$90.00

Triple Challenge Stereopticon No. 600



PRICE.....\$310.00

The Triple Challenge Stereopticon No. 600, for using the gases from tanks under high pressure.

Consisting of:

The triple lantern body.

Three best lime light jets.

Three best quality quarter size objectives for short distance.

Three best quality half size objectives for long distance.

Three pairs best condensing lenses, 4½ inches in diameter.

One triple high pressure dissolving key.

Eighteen feet rubber connections.

Three slide carriers.

Carrying case.

By means of the triple high pressure key either one, two or three of these lanterns can be used at the same time. The gases are under perfect control for each lantern.

The instrument is handsomely finished, the workmanship of the highest grade, and every part warranted.

Objective and Condensing Lenses The Illuminant.

The size of the view and the clearness of the picture upon the curtain depend largely upon the objective of the magic lantern or stereopticon. By objective is meant the combination of lenses mounted in a brass tube, with rack and pinion for adjustment, which is attached to the front of the instrument.

The brightness of illumination of the picture depends upon the form of light and the condensing lenses. The latter are the large lenses, 4½ inches in diameter being the accepted standard, two in number, which are placed in the instrument in front of the stereopticon view and project the image into the objective.

Objective lenses of inferior quality project a picture which is not equally well defined at all points upon the curtain, the edges being usually blurred when the center is in focus. The best objectives produce a view which is equally sharp and clear in center and at the edges. Condensing lenses of poorer grade do not concentrate the rays of light properly and project a defective image into the objective, which cannot therefore throw forward a perfect picture, no matter how fine in quality.

Perfect projection, therefore, requires high illumination, flawless condensing lenses and achromatic objectives that are optically perfect.

It should be stated, however, that while the arc electric lamp at a proper amperage and voltage (15 to 25 amperes, 110 volts direct current) is the most powerful illuminant for projection, experts prefer the calcium light for stereopticon work on account of its soft and mellow character, which is preferable to the glaring whiteness of the arc lamp. For moving pictures, however, which reduce the light partly because of motion, partly because of their small size, the electric lamp is preferable.

The illuminated disc projected on the curtain by a magic lantern or stereopticon should be equally bright from center to the edges. If one part of the disc is darker than another the burner has not been placed in proper position in the body of the instrument. In order to procure an equally illuminated field, the flame should be in line with the center of the condensing lenses and objectives. Placing the burner in proper position is called "centering the light."

It is not necessary to make previous calculations to determine the position of the flame, as the most practical method lies in watching the disc upon the curtain while the lamp is being swung into position by experiment.

The distance between the flame and the condensing lenses varies according to the foci of the condensers and the objective. All of our apparatus is supplied with condensers whose focus is regulated according to the objective that customers may order with the instrument. If a condenser of right focus is not furnished to match the objective, the flame of the burner will be either too near or too distant from the condensing lens; in the first instance the danger of breaking the condensing lens is increased greatly, and in the latter case the light is weakened.

This matching of focus between condensers and objectives is frequently neglected by dealers, as it involves calculations and a knowledge of optical principles with which even experts are sometimes not familiar.

We would advise exhibitors, particularly those who have not previously operated stereopticons, magic lanterns, or moving picture machines, to study the basic principles underlying projection work. These are simple and easily mastered, and will enable the exhibitor to order intelligently and to his own profit. Careful perusal of the following pages is advised.

THE OBJECTIVE.

These are made in standard sizes and have fixed trade names as follows: 1-4 size, 1-3, 1-2, 2-3 and 4-4 sizes; the lenses in these objectives increase in size of diameter from 1-4 to 4-4, and project a picture according to the following scale:

The 1-4 size objective will project a view on the curtain, assuming that the stereopticon view is of standard size, which will equal half of the distance between the condensing lenses and the curtain.

The 1-3 size objective will project a picture whose size is equal to 4-10 of the distance.

The 1-2 size objective will project a picture whose size is equal to 3-10 of the distance.

The 2-3 size projects a picture equal to 1-4 of the distance.

The 4-4 size, a picture equal to 1-5 of the distance.

It therefore follows that the 4-4 size objective is used for the longest distance; the others for decreasing distances.

For extra short distance there is a special objective called a wide angle stereopticon lens, which projects a picture whose size is equal to about nine-tenths of the distance between condensing lens and curtain. This is usually employed for stage work and is placed in position on the stage behind the curtain.

Standard objectives increase in diameter of lens with the fraction; that is to say the 1-3 size is larger than the 1-4; the 1-2 larger than the 1-3; the 4-4 being the largest.

In order to obtain the best results it is necessary that the longer distance objective be larger than the short distance; although there are many objectives on the market, which we supply to customers who wish to economize, that contain long distance lenses in small mountings, we do not recommend them for high class work, as they lead to loss of light and clearness of the picture. The difference in cost, for instance, between the 4-4 size objective in standard mounting and the same focus to produce the same size picture in a smaller mounting is as \$29 to \$6.

The best quality 4-4 objective of standard size is worth \$29.00, the same focus to project the same size picture at the same distance in a 1-4 size mounting is worth \$6.00.

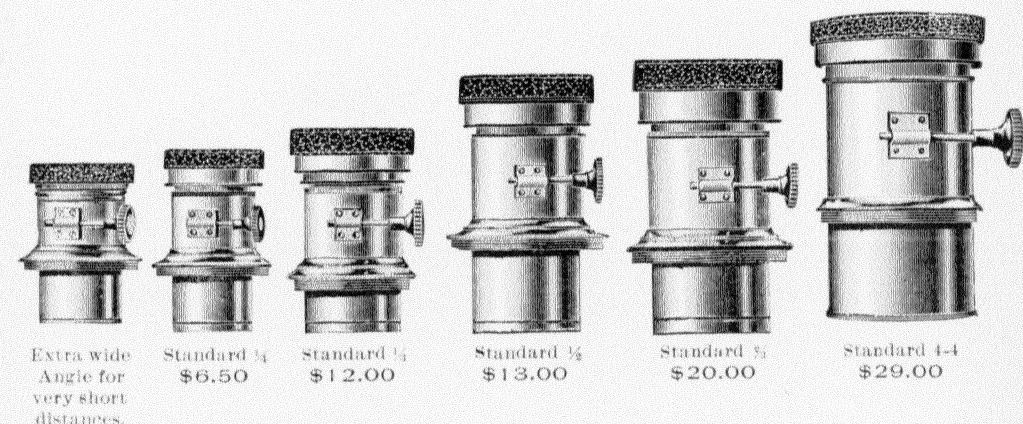
Long focus objectives; that is to say those to be used for longer distance work, call for a higher candle power than the short distance objectives. For this reason it is advisable to use the 2-3 or 4-4 focus with calcium or arc electric light only. These objectives produce unsatisfactory results when used with oil, acetylene or incandescent electric light.

We have made objective lenses for the stereopticon and moving picture machine our special study, and carry a larger stock of these, as well as of condensing lenses, than any other house in the country. We can satisfy the demand for cheaper goods as well as the very finest that can be made.

Until recently the French objectives made by Darlot of Paris were the best to be obtained for stereopticon work. But after continued experimentation the Bausch & Lomb Optical Co., an American Company and the largest lens grinding concern in the world, has succeeded in making a line of objectives whose lenses we consider equal to the Darlot, while the brass work is better, being more durable and less liable to accident because of better construction.

Comparative Sizes of Standard Objectives

BEST QUALITY



*Any or all of these Standard Size Objectives
can be used with the following instruments :*

No. 500 Stereopticon, for lime light.

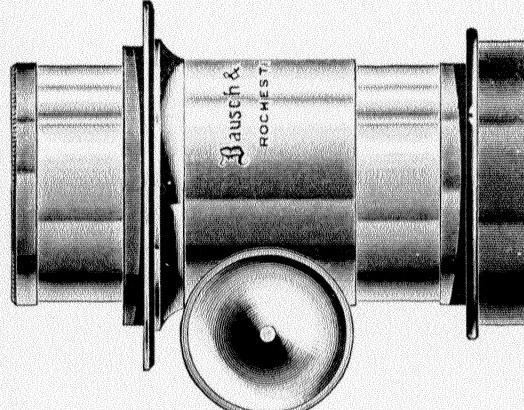
No. 500 K Stereopticon, for electric light.

No. 500 D Stereopticon, with Edison Kinetoscope
mechanism.

No. 100 Supreme Magic Lantern.

Prices of the Standard Size Stereopticon Objectives.

BAUSCH & LOMB OPTICAL CO.'S MAKE, FINEST QUALITY.
MADE OF PUREST JENA GLASS.



These lenses are achromatic, accurately ground, mounted in highly finished brass tube, within brass jacket, with rack and pinion of substantial pattern, capable of withstanding hard usage. Taking into consideration the various elements that an expert seeks in an objective lens, they are the finest objective lenses for projection work that are on the market. Each is provided with leather covered dust cap and brass collar.

No. 269. Quarter size Stereopticon objective, size of picture equals half of distance from curtain, price \$6.50

No. 268. Half size Stereopticon objective, size of picture equals three-tenths of distance from curtain, price.....	13.00
No. 270. Two-thirds size stereopticon objective, size of picture equals one-fourth distance from curtain, price.....	20.00
No. 271. Four-fourths size stereopticon objective, size of picture equals one-fifth distance from curtain, price.....	29.00

Unless otherwise ordered, those of our instruments that are listed as being mounted with best grade of objectives will be equipped with the grade described above. Customers preferring them may have the French Darlot objectives at the same price.

Economic Objectives, 1902 Models.

Exhibitors whose work does not require objectives of the best quality, or who wish to economize in ordering an equipment, have at their disposal a series of objectives of new pattern which have been constructed for us according to our ideas, embodying very good definition, with solidity of construction, having rack and pinion, dust cap and brass collar; at the same time these are offered at a price that has never before been approached for objectives of equal merit.

This series of objectives is made of the same size for all foci; the 1-4, 1-3, 1-2, 2-3 and 4-4 focus are all mounted in the $\frac{1}{4}$ size tube, which means a great saving, particularly in the long focus objectives; the long distance (4-4) size costing only one-seventh as much as the standard size of equal focus. It projects the same size picture at the same distance, but loses somewhat in definition and illumination.

Exhibitors who desire a set of lenses for various distances with an instrument can fully equip their apparatus with these at a very reasonable price.

Price of Economic Objectives.

1-4 Size (short distance), price	\$4.50
1-3 Size (medium short distance), price	4.50
1-2 Size (middle distance)	4.50
2-3 Size (medium long distance)	4.50
4-4 Size (long distance)	6.00

Our economic series of objectives is by far the cheapest complete line that has ever been offered.

No. 288. The Challenge Short Range Objective.

A special objective lens of extreme power for magic lantern and stereopticon work. This will fit any bellows lantern and is constructed for specially short distance, when the instrument is placed close to the curtain. Has dust cap and brass collar. The size of the stereopticon picture projected by this lens at various distances is as follows:

Distance of 6 feet between instrument and curtain, size of picture 5 feet.
Distance of 10 feet between instrument and curtain, size of picture, $8\frac{1}{2}$ feet.
Distance of 15 feet between instrument and curtain, size of picture 13 feet.
Distance of 20 feet between instrument and curtain, size of picture 17 feet.
Distance of 25 feet between instrument and curtain, size of picture 21 feet.

Old lantern operators will appreciate the value of such an objective in case the distance from the lantern to curtain in front is too great for practical work, or if the front position is in the way of the audience. They will be able with the use of objective No. 288 to project from behind the curtain and through it, or very close to the curtain on the same side as the audience.

No. 288. Price of extra short distance Stereopticon Objective, good quality, each . . . \$7.00.

No. 298. The Challenge Short Distance Moving Picture Objective. 1902 Model.

Price.....\$7.00

The objectives that usually accompany moving picture machines project a life size picture at a long distance, and too small a view at short distances. This is due to the fact that individual pictures on a moving picture film are very small and even a high power objective requires a long distance to enlarge the view to life size.

The ordinary moving picture objective projects a view whose entire disc equals about one-fifth of the distance. A 10-foot disc at 50 feet, 15 at 75 feet, etc. To evolve an objective which would project equally large pictures at lesser distances has been a difficult task, but we believe that we have solved the problem satisfactorily with our new 1902 Model Challenge Moving Picture Objective.

The Challenge Short Distance Moving Picture Objective—Continued

This lens is of high magnifying power, and projects an illuminated disc whose size equals about one-third of the distance. The following table will demonstrate its approximate capacity:

At 23 feet between machine and curtain, a moving picture whose size is 7 ft.
At 33 feet between machine and curtain, a moving picture whose size is 10 ft.
At 48 feet between machine and curtain, a moving picture whose size is 14 ft.
At 68 feet between machine and curtain, a moving picture whose size is 20 ft.

The higher the power of an objective the more delicate must be the focusing. A slight variation in position of the lenses will throw the view out of focus. The usual rack and pinion being considered not delicate enough for fine adjustment of this lens, we have adopted an entirely new method, which allows of the slightest variation in position of the lenses, is rigid and completely under the control of the operator; the operation of the machine cannot possibly alter the position of the objective by a hair's breadth.

This feature lies in a spiral groove cut into the inner tube of the lens, in which plays a steel screw; a milled flange fastened to the inner tube causes it to revolve when turned by the operator and at the same time the screw, working in the spiral, causes the tube containing the lenses to play backward and forward.

The objective is provided with dust cap and brass collar.

No. 298. Price of the Challenge 1902 Model Moving Picture Objective,
for Short Distances \$7.00

We will be pleased to send this objective on receipt of price, with privilege of three days' trial and return for refund if not satisfactory. It will fit the Edison Projecting Kinetoscope without alteration and any other make that follows standard gauges. In ordering, state for which machine.

ILLUMINANT. CONDENSERS. OBJECTIVE.



THIS TRIO DETERMINES THE QUALITY OF THE
PICTURE WHICH THE AUDIENCE SEES
UPON THE CURTAIN.

No. 258. THE SELF-FOCUSING OBJECTIVE.

A New Objective for Moving Picture Work

Price, \$20.00.

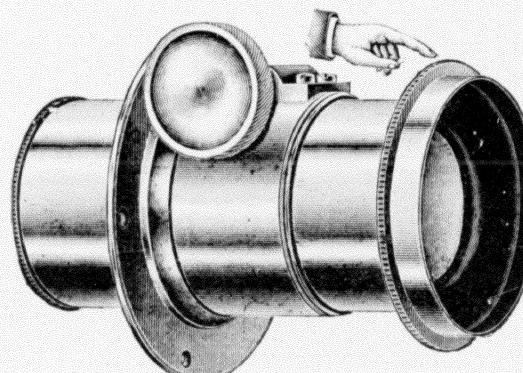
A lens which will project a large or small moving picture, and of any size between the two extremes, without changing the location of the machine, and without making any change in the objective.

All moving picture exhibitors feel the want of an objective which will produce with perfect definition the various sizes of moving pictures without changing the position of the instrument.

We are now placing upon the market an objective which embodies a very novel principle of construction, and which is bound to take the place of all of the ordinary objectives that have been used for this purpose.

This objective resembles in appearance the ordinary objective and projects a maximum picture whose size is equal to about one-third of the distance from the curtain to the instrument, and a minimum picture whose size is equal to about one-fifth of the distance. These sizes and all sizes between can be projected from one position.

This is accomplished by a peculiar combination of lenses in the objective. These lenses remain in place. The objective is not to be confounded with the wholly inadequate lenses that have been on the market and which work with removable tubes.



YOU OBTAIN A FOCUS IN THE ORDINARY WAY, BY MEANS OF THE MILLED SCREW HEAD.

YOU VARY THE SIZE OF THE PICTURE BY TURNING THE HEAD OF THE OBJECTIVE, INDICATED BY THE HAND. PICTURE ALWAYS REMAINS IN FOCUS AFTER THE FIRST ADJUSTMENT.

No. 258. Universal or Self-Focusing Moving Picture Objective

The Universal Objective will project:

At 20 feet distance, any	size picture desired	between 4 and 7 feet.
" 30 "	"	" 6 " 10 "
" 40 "	"	" 8 " 14 "
" 50 "	"	" 10 " 17 "
" 60 "	"	" 12 " 20 "
" 80 "	"	" 16 " 26 "

Illustrating the use of this lens: Assuming that a moving picture machine has been placed at a distance of 50 feet from the curtain, which is 12 feet in size. On making his first trial the operator focuses his objective and finds that his picture is too large for the curtain. He then reduces it to the exact size of his curtain merely by revolving the front ring of the objective, which controls the inner combination of lenses.

Changes in size of picture can be accomplished while the machine is in operation.

The Self-Focusing Objective will fit the Edison Kinetoscope or any other moving picture machine, and is to be recommended for universal moving picture work.

Price of the Universal Self-Focusing Objective, \$20.00

No. 260. ADJUSTABLE STEREOPTICON OBJECTIVE.

Price each \$50.00

This lens is constructed upon the same principle as No. 258 described above, and is the only stereopticon lens on the market which will project a large or small picture, or any size between these extremes, without changing the lens, and without changing the position of the lantern. This is accomplished by the peculiar arrangement of the lenses within the objective, which are adjusted to project various sizes of pictures by turning the front of this lens, as shown

CONDENSING LENSES.

Every properly constructed magic lantern, stereopticon and moving picture machine has two condensing lenses which serve to collect and intensify the rays of light, projecting the view forward into the projecting lens. In the best models these are 4½ inches in diameter.

The relationship between the foci of the condensing lenses and the objective is intimate, though frequently disregarded. Condensers are usually made with one of the following foci: 6, 6½, 7, 7½ or 8-inch. Of these combinations of 6½ with 7½-inch focus answer every purpose. According to the focus of the objective lens, we use in one mounting:

- Two 6½-inch focus.
- One 6½ with one 7½-inch focus.
- Two 7½-inch focus.

We equip all of our instruments with condensers whose focus is based upon the projecting lens. In sending condensers separately, we will ship the proper focus if customers will state the size of picture their objective projects at a given distance.

PRICES OF CONDENSING LENSES, PLANO CONVEX, GROUND EDGES, BEST QUALITY, SPECIAL FINISH.

3 inches in diameter, unmounted	\$1.00
3½ inches in diameter, unmounted	1.25
4 inches in diameter, unmounted	1.50
4½ inches in diameter, unmounted	1.75
4½ inches in diameter, unmounted	2.00
4¾ inches in diameter, unmounted	2.50
5 inches in diameter, unmounted	3.00
6 inches in diameter, unmounted	4.00
7 inches in diameter, unmounted	7.00
8 inches in diameter, unmounted	10.00
9 inches in diameter, unmounted	13.00
10 inches in diameter, unmounted	16.00
12 inches in diameter, unmounted	33.00

CONDENSERS, ORDINARY COMMERCIAL QUALITY.

4 inches in diameter, unmounted	\$1.00
4½ inches in diameter, unmounted	1.50

CONDENSERS MOUNTED IN BRASS CELLS.

1 pair Plano Convex Condensers, mounted in cells, 4 in. diameter.....	\$3.00
1 pair Plano Convex Condensers, mounted in cells, 4½ in. diameter.....	5.00
1 pair Plano Convex Condensers, mounted in cells, 5 in. diameter.....	7.50

ILLUMINANTS FOR PROJECTION WORK.

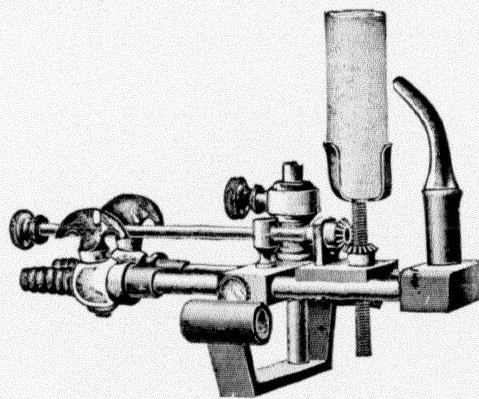
IMPROVED OXY-HYDROGEN OR LIME LIGHT JETS.

We have given much attention to the manufacture of lime light burners and claim for our product superior workmanship. The gas passages are constructed according to the most scientific proportions, the mixing chamber well balanced to avoid friction and consequent noises at the tip.

We now offer an additional improvement, which lies in the use of three interchangeable goose necks for the burner, with bores of various sizes, for various powers of illumination. Any one of the three necks can be instantaneously screwed into the jet, as occasion demands.

Goose neck No. 1 is the smallest, consuming about five feet of gas per hour; Goose neck No. 2 is the medium size, consuming about seven feet of gas; neck No. 3 is the largest, using about 9 feet per hour. The light increases in brilliancy as the gas pressure increases.

PRICES OF LIME LIGHT BURNERS.

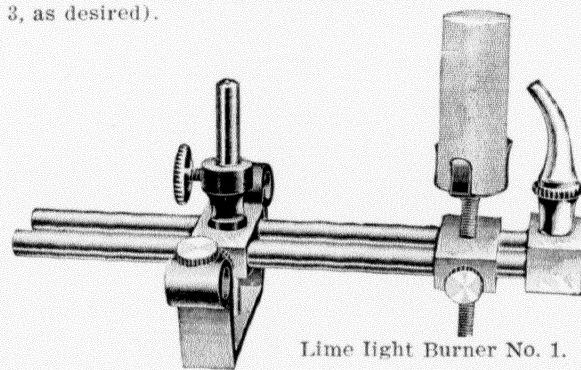


No. 125. Improved Oxy-Hydrogen Burner, with three interchangeable goose necks, for various powers. Has mechanical lime movement, to turn the lime from the outside of the lantern body; has stop-cocks, the whole being finely finished and nickel plated.

Price, with 3 Goose Necks, \$12.00

No. 115. Improved Oxy-Hydrogen Jet, with mechanical lime movement and stop-cocks, nickel plated, finest workmanship..... \$9.00

(Lime light burner No. 115 is the standard pattern, with goose neck permanently fastened. It can be furnished, however, with choice of neck Nos. 1, 2 or 3, as desired).



Lime Light Burner No. 1.

with cross pieces oxydized. Has spring clip lime holder, with threaded support to raise, lower, or turn lime. Price \$4.00

We guarantee that all of our lime-light burners burn noiselessly when properly handled. The cross bar into which is slipped the supporting rod of the lantern slides forward and back with all of them and has clamping screw; the lime cup support is also movable, with clamping screw. Nos. 125, 115 and 116 have side clamp for support; No. 1 has center clamp.

Where To Buy Gases for Lime Light.

We advise customers who wish to use Calcium Light in stereopticons or moving picture machines, to buy the oxygen and hydrogen gases in tanks from the Calcium Light Companies in preference to making the gases themselves.

Gas making outfits are listed elsewhere in this catalogue for the benefit of those who find it impracticable to buy the gases.

Following is a list of Calcium Light Companies from whom the gases can be bought, put up in tanks. These companies do not charge for the use of tanks if returned within a reasonable period.

The charge for Calcium Light Gases, Oxygen and Hydrogen, is \$6.25 for the gases contained in a pair of 50-foot cylinders, or 12½ cents for one foot of each gas, when sold by the Chicago Calcium Light Co. The charge is somewhat higher in other cities. Ordinary lime light burners consume from five to six feet of gas per running hour.

ALBANY—

Albany Calcium Light Co.,
26 Williams Street, Albany, N. Y.

BUFFALO—

Buffalo Calcium Light Co.,
A. B. Collins and W. M. Ross, Mgrs.,
169 Niagara Street, Buffalo, N. Y.

BOSTON—

New York Calcium Light Co.,
102 Utica Street, Boston, Mass.

BROOKLYN—

Brooklyn Calcium Light Co.,
W. Harvey, Prop.,
112 Front St., Brooklyn, N. Y.

CHICAGO—

Chicago Calcium Light Co.,
Garden City Calcium Light Co.

COLUMBUS—

The Columbus Calcium Light Co.,
796 North High St., Columbus, O.

CLEVELAND—

Cleveland Calcium Light Co.,
208 Wood St., Cleveland, O.

CINCINNATI—

Cincinnati Calcium Light Co.,
120 Longworth St., Cincinnati, O.

DENVER—

Denver Calcium Light Co.,
H. W. Wilson, Mgr.,
966 Eleventh St., Denver, Colo.

DETROIT—

Western Calcium Light Works,
Chas. Ernest, Mgr.,
185 Hastings St., Detroit, Mich.

INDIANAPOLIS—

Indianapolis Calcium Light Co.,
H. E. Bishop, Mgr.,
224 W. Maryland St. and
227 W. Pearl St., Indianapolis, Ind.

KANSAS CITY—

Kansas City Calcium Light Co.,
Kohlman Bros., Mgrs.,
918-920 Central St., Kansas City, Mo.

MINNEAPOLIS—

C. E. Van Duzee,
720 Hennepin Av., Minneapolis, Minn.

NEW YORK—

New York Calcium Light Co.,
410 and 412 Bleeker St., N. Y. City.

OMAHA—

Omaha Calcium Light Co.,
Balbach & Rustin, Mgrs.,
416 S. 15th St., Omaha, Neb.

PHILADELPHIA—

New York Calcium Light Co.,
310 S. 5th St., Philadelphia, Pa.

SAN FRANCISCO—

San Francisco Calcium Light Co.,
F. W. French, Mgr.,
10 Stevenson St., San Francisco, Cal.

SYRACUSE—

J. R. Clancy,
247-249 N. Salina St., Syracuse, N.Y.

ST. LOUIS—

St. Louis Calcium Light Co.,
A. Ross, Mgr.,
519-521 Elm St., St. Louis, Mo.

Apparatus for the Generation of Gases

And Other Means of Producing Illuminants for Projection Apparatus

The greatest difficulty with which dealers in projection apparatus have to contend is the furnishing of efficient and safe appliances for the production of light.

The oil light, while satisfactory for small lodge halls, Sunday schools and home use, is wholly unsatisfactory for public exhibitions to which is charged a price for admission. The acetylene and incandescent electric lamps, while better than oil light, and often powerful enough for public exhibitions of stereopticon views, are not usually satisfactory for moving pictures.

There remains therefore the arc electric and calcium light as the most satisfactory for the projection of moving pictures and stereopticon views.

The arc electric light can only be procured in places where a satisfactory current is obtainable. Traveling exhibitors frequently find that there is no proper current to be had within practicable distance from the instrument, or are unable to manage it for lack of experience.

It is not as yet practicable for traveling exhibitors to carry apparatus for generating electric current for arc electric light; a system of storage batteries for this purpose would be very heavy, bulky, expensive, and the operating cost excessive. It is possible that eventually the new Edison storage battery will be adopted for this purpose; but experiments along this line are not advanced enough to warrant positive statements.

The question therefore is narrowed down in most cases to the use of calcium light. If the exhibitor is near a city in which calcium light gases are manufactured, we recommend by all means that he purchase his gases from one of these companies, which usually loan the tanks for a limited period free of charge.

If, however, this is impracticable on account of distance, time of transportation and charges, the exhibitor must purchase a gas-making outfit with which he manufactures the gases himself. Economy should be the last consideration in buying such an outfit; safety the first and efficiency the next.

The Production of Gases for Lime Light.

Apparatus for producing lime light gases consists of two parts; one for generating oxygen and one for hydrogen, or a substitute therefor.

Oxygen is generated by applying heat to black oxide or manganese, mixed with chlorate of potash, in the proportions of 1 of the former to 4 of the latter. About 1¼ pounds of the mixture will produce enough oxygen for a two hours' run.

Various forms of apparatus are in use for the generation and storage of oxygen. Sometimes the gas is lead into a gas bag, upon which weights are afterward placed to furnish the necessary pressure, or the gas is lead into a tank, pressure being obtained by generation.

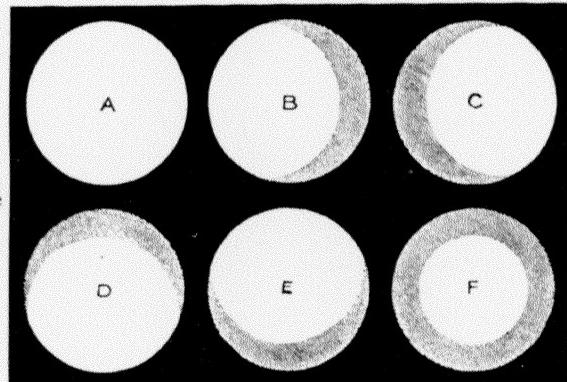
Oxygen does not burn, but intensifies the hydrogen or other gas, such as ether or gasoline vapor, which produces the light. The gas that burns is obtained by means of a "saturator," consisting of a vessel of some kind containing ether or gasoline, through which passes a stream of oxygen.

The explosive character of gasoline calls for great care in selecting the proper form of saturator, as well as in handling the material. We sell the best saturator of this class that is on the market (it is not of our own manufacture), and use every possible safeguard against accident; but as the results as well as its safety are entirely in the hands of the operator, we assume no responsibility with the sale of gasoline saturators nor of the low pressure oxygen tanks sometimes used with them.

Directions For Centering the Lime Light.

It is possible that when you turn on the oxygen and get a bright light on the lime, there may be little or no light on the screen. That is because your jet is not in the right position. One of three things will alter this. (1) Move the jet backwards or forwards, (2) Move the jet sideways on its support, (3) Move the jet up or down. After doing these three things you will find at one position a disc clearly and sharply lighted, and by means of the screws you may fix the jet firmly in its place.

Diagram Showing Various Defects of Illumination on the Curtain Before Light is Centered.



Shadows represent dark spots on the screen.

A—Perfect Disc.
B—Move the jet to the left.
C—Move the jet to the right.
D—Lower the jet.

E—Raise the jet.
F—Move the jet nearer to the condenser.

During the exhibition the lime should be frequently turned, and it is well to have a supply of these handy in case of accident.

These directions apply also to the centering of the acetylene and electric lights.

The Ether Saturator.

We consider the Lawson Saturator which employs ether the safest and most efficient substitute for the hydrogen gas tank on the market. It differs radically from the other types. The ether is placed in the saturator, the lime light burner forming part of it. The whole is made of brass, very solidly constructed, and we believe accident to be impossible. One-quarter pound of .735 ether is sufficient for two hours' run. The saturator is placed in the lamp house of the instrument.

The Lawson Saturator may form part of the various combinations for the production of lime light, as follows:

1. It can be used with oxygen bought in tanks from the calcium light companies. In this case the exhibitor saves freight on one gas tank, the saturator taking the place of the hydrogen tank. This combination requires no labor for preparation. The rubber tubing is lead from the oxygen tank to the nipple of the saturator, and operation is simple. Results are very satisfactory.

2. It may be used in combination with the gas bag system of storing oxygen.

3. Or it may be employed in combination with the tank and retort system most frequently used by the exhibitor for the making and storage of oxygen gas; this is the same style of apparatus as that which is used for the making of oxygen gas when gasoline saturator is used. Our outfit with Lawson saturator, however, includes a heavy steel scaille tank, tested to 600 pounds pressure, of the kind used by the calcium light companies, who fill the tank to a maximum pressure of 225 pounds. When the exhibitor makes his own gas he never exceeds a pressure of 130 pounds. Ordinary low pressure tanks furnished with gas making outfits are never tested beyond 200 pounds pressure and we think them barely safe at 130 pounds.

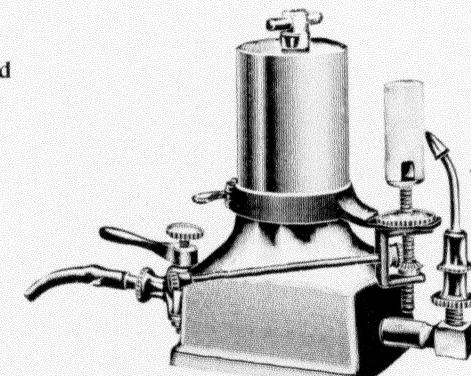
The Ether Saturator—Continued.

Customers who own one of our high pressure Scaiffe tanks if near a calcium light company can send them in to be filled with oxygen and save the labor of manufacturing the gas themselves.

No. 33.

The Ether Saturator Combined with Lime Light Burner.

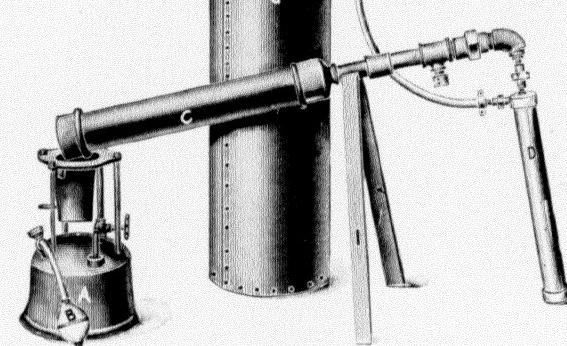
To Take the Place of Hydrogen Burner.



No. 33. ETHER SATURATOR.

No. 34.

Oxygen Making Outfit, Including Heavy Steel Scaiffe Tank Tested to 600 Pounds Hydraulic Pressure.



No. 200. COMPLETE GAS MAKING OUTFIT INCLUDES:

Lawson Ether Saturator, with lime light burner.

Oxygen Making Outfit, with heavy steel scaille tank, metal wash bottle, double needle valves, to control gases, retort and connections, pressure gauge, wrench, can for chemicals.

1 pound of Sulphuric Ether. .735.

Price of Complete Gas Making Outfit No. 200.....\$65.00

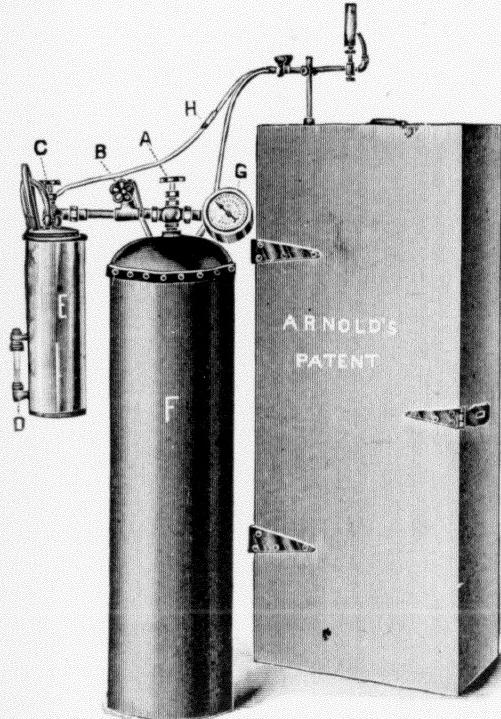
Furnace for Heating Retort, extra.....5.00

....Outfit No. 200 is well adapted for Moving Picture work with the Edison machine and can be used with any magic lantern or stereopticon, whose lamp house is large enough to accept the saturator.

Dimensions of Ether Saturator: Height, 8 inches; width at base, 4 inches; length from screwhead at front to rear end of base, 6 inches.

No. 33. Price of Ether Saturator (only), with lime light burner.....\$24.50

Mixed chemicals for making oxygen, put up in 10-pound cans, price per can \$2.00; sulphuric ether, .735, in sealed one-pound cans, per can, \$1.25.



No. 130A. The Eclipse Gas-Making Outfit for Lime-Gases. Price \$38.00

This style of outfit has been in use during the past two years and consists of:

- 1 tank to hold oxygen.
- 1 double needle valve.
- 1 retort and connections.
- 1 pressure gauge.
- 1 wrench.
- Can for chemicals.
- Gasoline saturator.

The exhibitor places his chemical in the iron retort, applies heat and the resultant gases pass through the wash bottle into the oxygen tank. The retort is then disconnected, the gasoline saturator attached and the outfit is ready for use with the instrument.

It is necessary that the gasoline used be 88 degrees—a lesser degree does not give off the gas readily and is attended with some danger.

The tank used with this outfit is of light construction and should not be filled over 100 pounds pressure; it is tested to 200 pounds.

This outfit when properly manipulated is unattended with danger; but as improper use may cause damage, we sell it only at customer's risk.

No. 130C. Gas-Making Outfit for Lime-Light Gases. Price \$50.00

This outfit is the same as No. 130A, excepting that we substitute a heavy Scaiffe steel tank, best quality, tested to 600 pounds pressure. This tank is of the same quality as those used by the Calcium light companies, which fill them to a maximum pressure of 225 pounds.

No. 130D. Gas-Making Outfit with New Saturator, No. 3. Price \$43.00.

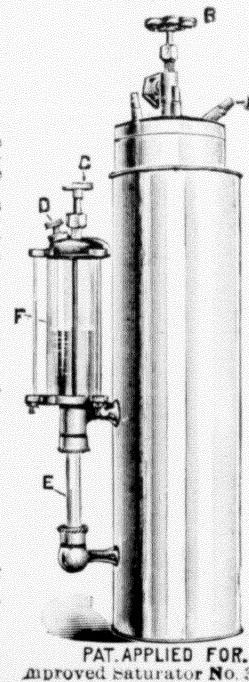
Gas-Making Outfit with new form of Saturator. Outfit No. 130D is the same in every respect as No. 130A described above, excepting that we substitute Improved Saturator No. 3 as illustrated. This saturator is made with glass gauge, regulating valve and reserve supply tank.

The glass gauge shows at all times when the proper amount of liquid is in the saturator and also serves as a by-pass, mixer and agitator, whereby the vaporization is greatly increased. The gravity supply tank with regulating valve automatically replaces the liquid as fast as the vaporization takes place.

This is the safest gasoline saturator yet invented, is automatic in action and if properly used will insure an even flow of gas and a bright, steady light. This saturator can be purchased separately and may be used with any portable outfit, and parts will be furnished on receipt of cap or nut to show size and thread of connection with oxygen tank.

Price of Saturator No. 3 without balance of Gas-making Outfit \$15.00.

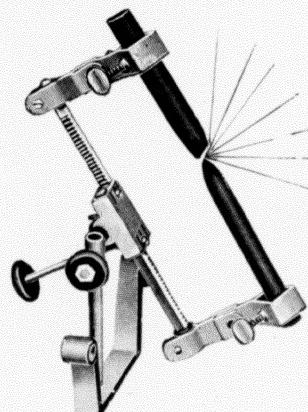
Price of Oxygen Needle, Regulating Valve and Connection for Connecting Tank and Saturator, \$3.50.



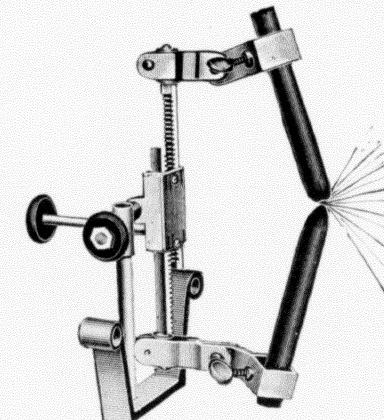
Gas-Making Outfit No. 130E. Price \$55.00

This outfit is the same as No. 130A described above with the following changes:

In place of the ordinary saturator, we substitute Improved Saturator No. 3 as described above, and in place of the light weight gas tank we substitute the heavy steel Scaiffe tank, best quality, tested to 600 pounds.



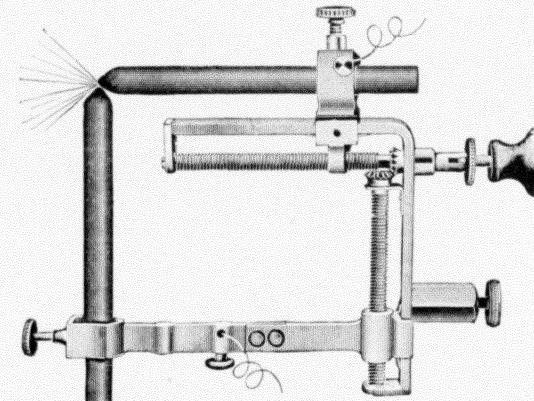
No. 136. Economic Electric Arc Lamp. In position for direct current.



No. 136. Economic Electric Arc Lamp In position for Alternating current.

No. 136. Economic Electric Arc Lamp for Stereopticon Work, Spot Lights, etc. Price \$4.00.

This is an efficient lamp, compact, easily handled, built with adjustments for both direct and alternating current. Has quick feed, can be placed in instrument at any angle desired.



No. 130. Right Angle Arc Electric Lamp.

Price.....\$12.00.

Dimensions: Height from base to top of screw clamp, 7 inches; width from supporting standard to perpendicular carbon, 6½ inches. Separate control for upper carbon.

No. 137.

Adjustable Rheostat (resistance coil), good quality.....\$5.00

No. 138.

Adjustable Resistance Coil, Edison Make\$10.00

For direct current, 110 volts, or alternating, 52 or 104.

No. 139.

Adjustable Resistance coil, 220 to 235 volt direct current.....\$20.00

Experience having shown that automatic or self-registering lamps are unsatisfactory for projection work, in that they are complicated, not easily controlled, high priced and bulky, we do not recommend them. Prices will be quoted on application.

Remarks on the Use of Electric Arc Lamps in Magic Lanterns.

The positive wire is connected with the upper carbon; the negative with the lower. The following is a simple rule to determine which is the positive: attach the wires either way, make connections by bringing carbons together, then separate them from 3-16 to $\frac{3}{8}$ inches. After having burned about a minute, put out the flame. The carbon which is hottest and shows the red color the longest is the positive. If this should be the lower carbon, reverse the wires.

The direct current consumes the positive carbon twice as fast as the lower, therefore the upper carbon should be somewhat heavier to preserve the center when burning. The alternating current consumes both carbons equally, and therefore they should be of the same size. Cored carbons should be used for lantern work.

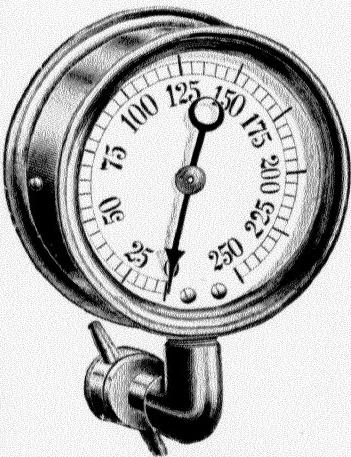
INCANDESCENT ELECTRIC LIGHT BULB.

For Lantern Work.

Our new lamp with filament of new design, to give a better light than has hitherto been obtained with incandescent lamps. To be used without rheostat, by direct connection with the ordinary socket. Price each, with plug, 10 feet of cord, socket and metal support for lamp.....\$4.00

PRESSURE GAUGE.

For Ascertaining the Cubic Feet of Compressed Gas in a Cylinder. . . .

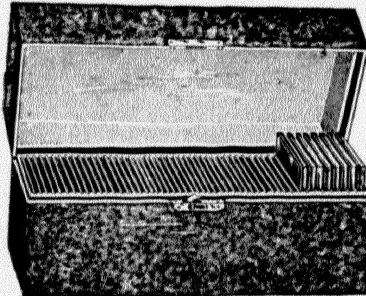


In the use of compressed gases the operator should assure himself before commencing an entertainment that his cylinder contain sufficient quantity of each gas to see him safely through, rather than run the risk of being obliged to dismiss his audience abruptly, owing to a deficiency of gas. Our Pressure

Gauge enables him to do this with ease and certainty. It is also valuable in proving the amount of gas received from calcium light companies, detecting error and shortage.

No. 118 Pressure Gauge. Price.....\$5.40

CARRYING CASES FOR SLIDES.



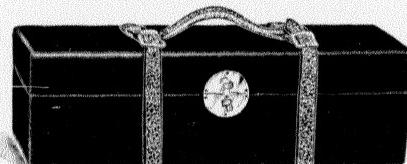
No. 50. SLIDE BOX FOR 50 SLIDES.

Cloth covered, very light and durable, with clasp for fastening cover. cardboard partitions to separate slides.

Price.....\$1.00

Outside Dimensions. Height, 4 $\frac{1}{2}$ in.; length, 10 $\frac{1}{4}$ in.; width, 4 $\frac{1}{2}$ in

CARRYING CASES FOR SLIDES—Continued



Outside dimensions: Height, 4 $\frac{1}{2}$ in.; length, 14 in.; width, 4 $\frac{1}{2}$ in.
Price.....\$1.75

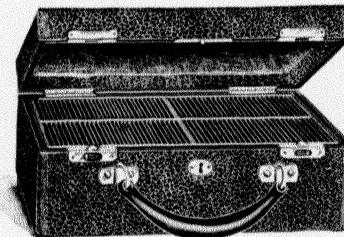
No. 100. Slide Box for 100 Slides.—Cloth covered, has substantial leather strap and cardboard partitions; the interior is arranged in two rows of 50 each

Outside Dimensions: Height, 4 $\frac{1}{2}$ in.; length, 10 $\frac{1}{4}$ in.; width, 8 in.

Price.....\$2.00

No. 100A. Slide Box for 100 Slides.—This is made of wood, cloth covered, cardboard partitions, two rows of 50 each; with straps, clasps and well finished handle.

Outside Dimensions: Height, 4 $\frac{1}{2}$ in.; length, 10 $\frac{1}{4}$ in.; width, 8 in.
Price.....\$2.75



Price

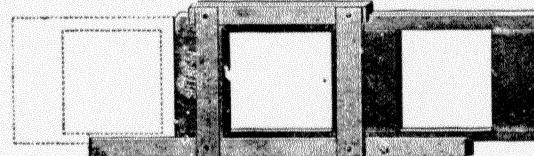
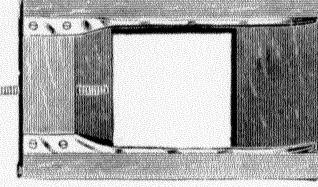
No. 120. Slide Box de Luxe.—The hand-somest, strongest and most practical slide box yet devised. Size is: Height, 5 in.; length, 11 $\frac{1}{4}$ in.; width, 9 in. Compartments separated by cardboard partitions; two rows of 60 each, with padded inside for better care of slides. Is made of wood, leather covered; has two clasps and in addition lock and key; with leather handle for carrying.

\$4.75

No. 137. SLIDE CARRIER.

For Dissolving Stereopticon.

Price, each\$0.75



No. 135. SLIDE CARRIER.

Price

For instantaneous change of slide, for use with single lantern. The carrier is made of wood, and after being slipped into place need not be removed during the lecture. The slides are placed alternately in the compartments at the right and left of sliding frame.

ACETYLENE

ITS USE IN STEREOPTICONS AND MAGIC LANTERNS.

WHAT IS ACETYLENE?

Acetylene is a gas, resembling house gas, but producing a flame that is much more brilliant.

HOW IS ACETYLENE PRODUCED?

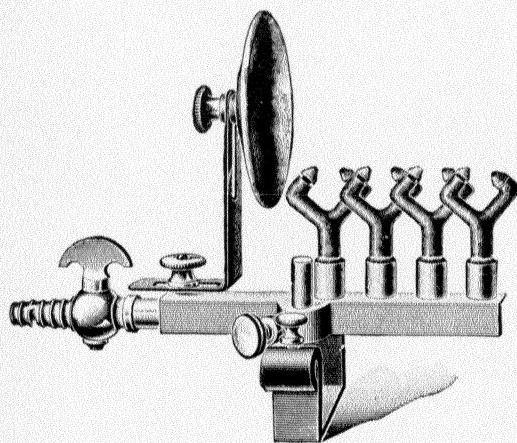
Acetylene is generated by the contact of a chemical (calcic carbide) with water. This is a hard substance, that is sold commercially in lumps like stove coal. It is as safe to handle as so many pieces of stone, but it must be kept dry when stored.

HOW CAN ACETYLENE BE ADAPTED TO THE NEEDS OF THE LANTERNIST?

Acetylene is adapted to the needs of the magic lantern operator by means of a gas generator, which produces the gas during the exhibition. It is not manufactured before an exhibition, but while the lecture is going on. By a simple device, there is sufficient gas being generated to supply the lantern for any period of time desired, the operator controlling the supply. A burner specially designed to give a maximum amount of light is used in the lantern.

IS THERE DANGER IN HANDLING ACETYLENE?

With proper apparatus, such as is described herein, there is absolutely no danger in the manufacture and use of acetylene in lanterns, provided the operator exercises the same degree of common sense that he uses with his ordinary illuminating gas at home.



THE CHALLENGE ACETYLENE GAS BURNER

FOR MAGIC LANTERNS.

PRICE..... \$6.25

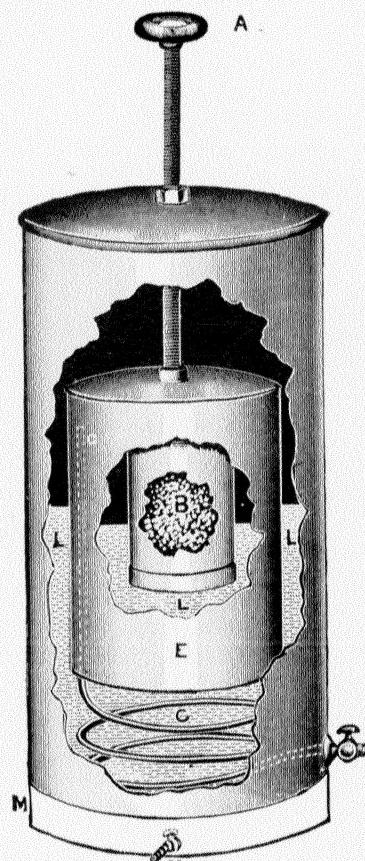
This Acetylene Gas Burner is unquestionably the best on the market. As shown in view above, it has eight patented tips; these are set at an angle in four sets of two tips each, the gas issues from each set at an upward and inward angle, meeting to form one flame. The lamp, therefore, gives four flames, so arranged as to give the maximum degree of illumination for projection.

A REFLECTOR, highly polished, is attached to each burner, and is adjustable.

Price of Rubber Tubing..... per Foot, 10 cents.

THE ACETYLENE GAS BURNER IS ADAPTABLE TO ANY OIL LIGHT LANTERN THAT HAS A HOOD TO ENCLOSE THE LIGHT.

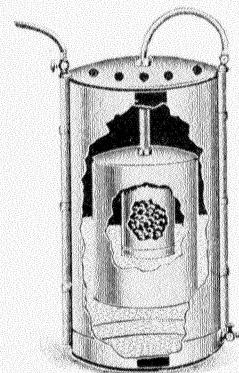
The acetylene light is seven times as powerful as the four-wick French oil lamps in common use in magic lanterns. It has half the power of lime light.



No. 160. Challenge Acetylene Gas Generator.

The Genuine Challenge Acetylene Generator No. 160.

Price = = = = \$8.00



Cheap Form Acetylene Generator.

Not Warranted.

Price = = = = \$4.50

Has no carbide control and no condensing coil.

The Challenge Acetylene Gas Generator No 160

It is absolutely necessary that acetylene gas generators have certain qualities primarily involving safety, and, secondarily, efficiency. It is therefore proper to use but one kind, and that the best that can be constructed. We believe that the saving of a few dollars in the manufacture of such an article as an acetylene gas generator at the expense of safety is a fatal error.

Our Challenge model for lantern work has been in general use during the past three years; has received the most thorough test among exhibitors who travel from city to city, in churches, halls, schools, lodge rooms, etc. It has frequently been used by lanternists who were wholly without previous experience in the handling of such apparatus, without hitches of any kind. We have continually experimented with a view to developing further the meritorious features of the generator, but after constructing model after model, one after another was rejected in favor of our present pattern, which now marks the standard.

The Challenge Acetylene Gas Generator cannot be improved by the addition of any parts or elaborations. To rob it of any of its features impairs its efficiency.

Among its many points that commend it to the favor of exhibitors are the

The Challenge Acetylene Gas Generator—Continued.

It is safe; not only safe when properly handled, but safe under any circumstances. We cannot conceive of any condition, of an error on the part of an amateur, that could cause an accident. This view is confirmed by the experience of three years, during which time we have never received a complaint as to the efficient working and absolute safety of this apparatus.

The generation of the gas is at all times absolutely under the control of the operator. This faculty is possessed by no other model on the market. Generation can be increased or diminished or stopped at will. This is due to spindle A, which controls the basket containing the carbide, lowering or raising it in the water; by lowering the basket pressure can be obtained. By raising it pressure can be diminished, and if raised sufficiently the carbide is taken out of the water entirely and the generation ceases. This, therefore, enables the operator to shut down his lantern if desired, and start up again instantaneously, merely by turning the spindle A to right or left.

Two other essential features of the generator are, first, the spiral coil C whose end projects above the water, and through which the gas is lead to the bottom of the generator, in which there is a separate compartment M, cut off from the upper part of the generator and the water supply by means of a false bottom. The spiral coil serves to cool the gas in its passage to this lower compartment, and as this has a large surface equal to the diameter of the generator, the gas is further cooled by contact with the water chamber. The cooling of the gas is one of the most important elements in obtaining a pure white light.

This compartment also serves the purpose of catching the water which is condensed during the passage of gas; disposition of condensation is an important problem which is here solved simply and well.

This combination of carbide control, spiral coil and bottom compartment accomplish the desired objects better than any other system that has ever been devised.

The gas when it reaches the burner is cool and dry; at no time is the generator itself even warm. This fact will be appreciated by those who have used other generators, with their habit of boiling over, hot generation, leaking gases and general sloppiness.

The weight of the Challenge Acetylene Generator No. 160 is 11 pounds; the dimensions are as follows: Height, 19 inches; diameter, 8½ inches.

Directions for operating are very simple and accompany each generator. It can be used with any acetylene burner or acetylene stereopticon on the market.

The merits of this generator have been so well recognized that some of its features have been copied, but in order to economize in the manufacture the copyists have discarded the carbide control, as well as the coil at the bottom, which at once introduces an element of danger, as generation is not under the control of the operator, therefore unsafe, and the gas reaches the burners in an impure condition, lessening the illumination. All other parts are cheapened.

The Challenge Acetylene Gas Generator--Continued.

We can supply such a generator at \$4.50 to customers that are willing to take chances. In this case, however, we do not warrant the generator and waive all responsibility.

Price of Calcic Carbide, 5 pounds, with canister.....\$0.60
Price of Calcic Carbide, 10 pounds, with canister.....1.00

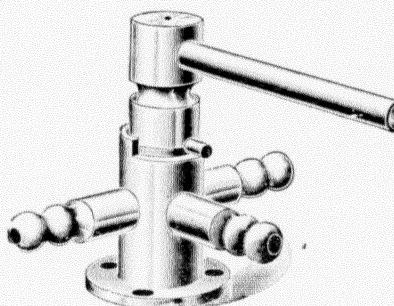
A traveling lecturer, with a supply of carbide of calcium, is free to go anywhere and give a first-class exhibition, without external sources of supply. The light weight and compactness of the generator enables him to carry it easily in traveling.

Full directions accompany each generator.

Acetylene Light Outfit for Stereopticon or Dissolving Lanterns.

DISSOLVING KEY

Price of Dissolving Key for Acetylene Light.....\$4.50



Price \$23.00

The acetylene light can be used in dissolving lanterns. By means of a dissolving key the gas can be turned from one instrument into another as easily as the lime light.

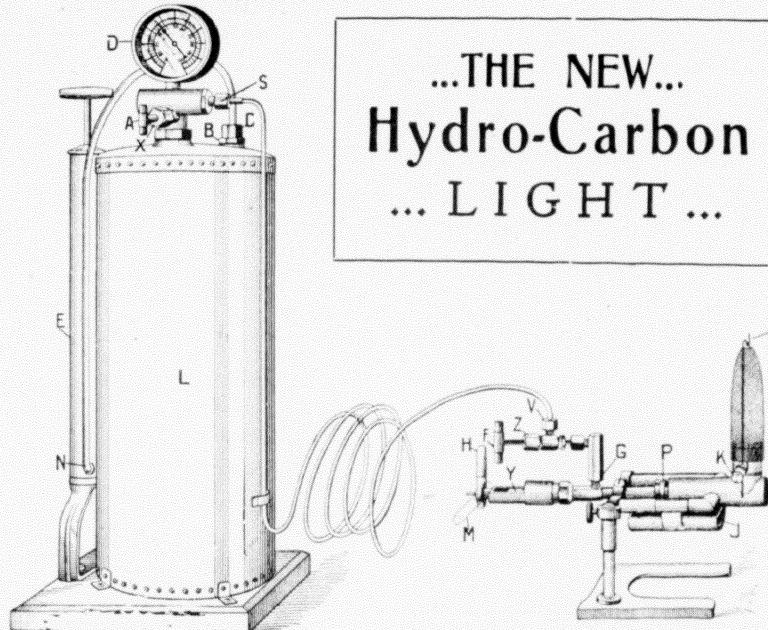
Customers who find the lime light too expensive or troublesome in their dissolving stereopticons can substitute the acetylene outfit, as follows:

Two Acetylene Gas Burners.
One Acetylene Gas Generator.
One Acetylene Dissolving Key.
Ten Feet of Rubber Tubing.

Acetylene Outfit to Replace Light in Your Own Lantern.

We will furnish the Acetylene Gas Generator, the burner, six feet of rubber tubing, a wooden base to fit customers' magic lantern if desired, with a supporting rod to hold the burner.

Price \$15.00



...THE NEW...
Hydro-Carbon
...L I G H T ...

The New Hydro-Carbon Light Outfit, as shown in illustration, including tank, burner, pressure gauge, pump and one mantle, in packing case.	\$25.00
Extra length of connecting pipe	.125
Extra mantles, each	.20
Extra Droppers	.35

This is a portable apparatus which will produce an intensely "Bright White Light," free from flicker and from disagreeable odor, absolutely safe, easy to handle, inexpensive to operate, thoroughly durable; and so light in weight that it can be carried in the hand; the material consumed is ordinary kerosene.

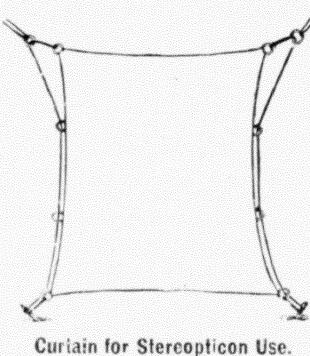
The discovery made a few years ago that the Hydro-Carbon Vapor from kerosene when burned with a strong or forced draught under proper conditions, produces an intensely brilliant, pure, white light, has been utilized with wonderful success for street and house lighting; the large street lights giving a candle power of nearly 2,000. This principle has now been applied to the magic lantern.

The apparatus for producing light for projection use consists of a stout cylinder fifteen inches in height and six inches in diameter. In this cylinder are placed three quarts of kerosene oil such as can be obtained anywhere in the civilized world.

The oil is vaporized by the action of the compressed air in the vaporizer, and under a strong draught is burned on a regular Welsbach Mantle. The light thus produced is a pure bright white light. By means of a bicycle pump the air is compressed in the cylinder to the proper point, and the apparatus is ready for immediate use.

The expense of operation is small. For instance, one gallon of oil will last for 12 hours making the running expense less than one cent an hour.

CURTAINS FOR STEREOPTICON USE.



MADE OF THE FINEST QUALITY SHEETING
WITH LOOPS AND ROPES.

30 feet square.....	\$15.00
24 " "	12.00
20 " "	10.00
18 " "	8.00
15 " "	6.00
12 " "	4.50
10 " "	3.50
8 " "	2.00

Screw two small screw-rings into the wall or into the window frame, one on each side of the hall, near the ceiling, and two others in the floor, one on each side. Then support the screen by the cord passing through the loops on the upper side of the screen and through the upper screw-rings, bringing the ends of the cord down and securing them to the rings in the floor, to which can also be attached cords from the loops on the bottom and sides of the screen to steady it.

CYLINDERS.

We handle only the well known Scaife cylinders; the only cylinders manufactured that have stood the test of time. They are made from the best open hearth steel selected for this particular use, and the greatest care is exercised at every stage of their manufacture. Each cylinder is tested to 600 lbs. hydrostatic test, and is unqualifiedly guaranteed.

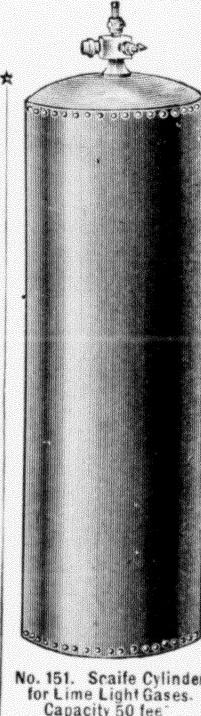
Oxygen tanks are always painted red; hydrogen tanks black.

Capacity is figured at the standard pressure of 225 pounds to the square inch.

The cylinders mounted with Patent Double Needle Valve No. 145.

Price and weight each:

Capacity.	Size.	Weight.	Price.	Capacity.	Size.	Weight.	Price.
50 feet,	12x48 inch.	95 lbs.	\$22.50	25 feet,	10x34 inch.	65 lbs.	\$18.75
40 "	12x42 "	85 "	21.25				
35 "	12x36 "	75 "	20.00	15 "	8x30 "	38 "	17.50

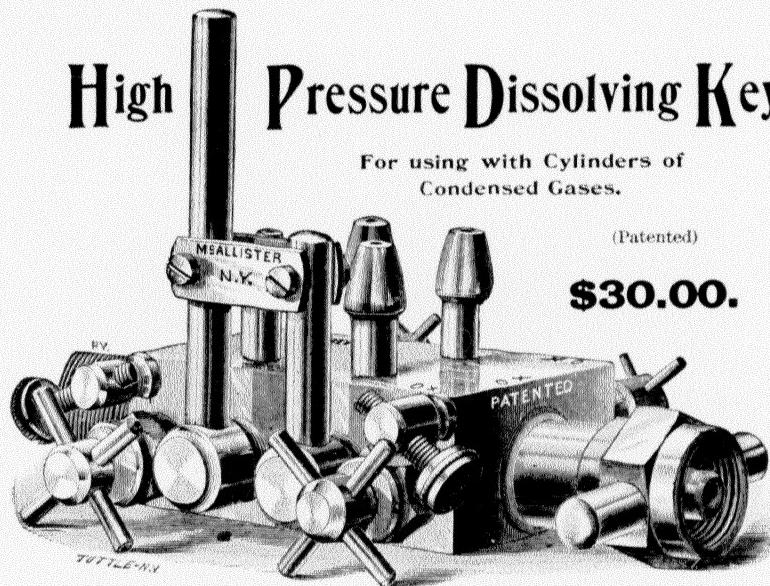


High Pressure Dissolving Key

For using with Cylinders of Condensed Gases.

(Patented)

\$30.00.



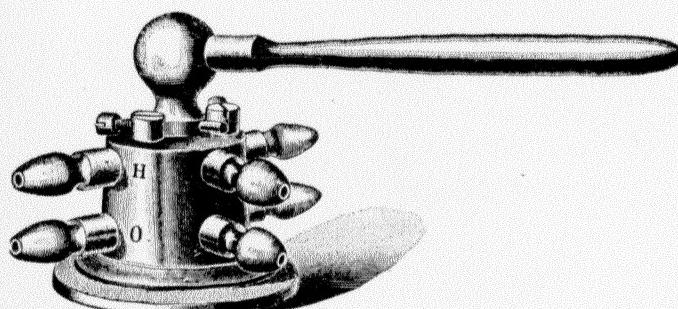
Price, \$30.00, including substantial flexible Connection and Coupling.

A serious drawback to the employment of condensed gases in operating a **Stereopticon** has been the impossibility heretofore experienced of regulating the flow of the gases to each jet, so as to yield that uniformity of illumination on which the beauty of "Dissolving" so greatly depends. Owing to the extreme pressure with which the cylinders are charged, the gases rush out with such force that the old-fashioned *single plug* Dissolving Key cannot control them; though it answers well enough for the comparatively slight pressure used with bags. The result, therefore, of attempting to dissolve condensed gases with the old-fashioned Key, has been a *darkening of the picture* when the lever of the Key was turned to transfer the gases from one jet to the other; exceedingly unpleasant to the eyes of the audience, and entirely destroying the illusion which is the great charm of "Dissolving Views."

High Pressure Dissolving Key effectually overcomes this difficulty; and no matter how great the pressure may be on either gas, or on both gases, it controls the flow, so that *no darkening* is perceptible, and the pictures melt one into the other without any difference in the amount of illumination on the screen. In the introduction of a "Vision" or other effect in which the light from each Lantern must be projected to the screen at the same time, it permits the "Vision," etc., to be brought in without making the main scene dim or obscure; all its details remaining as perfect as before.

This High Pressure Key is the only one on the market that has independent plugs for each cylinder and for each jet.

Each jet is adjusted independently of the other.



NO. 114. LOW PRESSURE DISSOLVING KEY

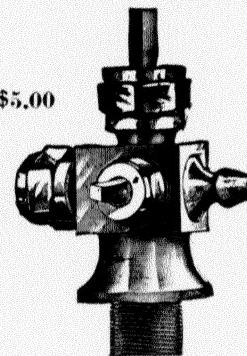
70

No. 114. Low Pressure Dissolving Key, for use with either gas bags or cylinders, best workmanship.

Price.....\$9.00

NO. 152. PATENT VALVE.
For High Pressure Lime Light Tanks.

Price, \$5.00



IMPROVED CYLINDER WRENCH No. 119.



Price.....\$0.75

Invaluable to everyone using condensed gases. This wrench is so constructed that it fits on the spindles of the cylinders containing the gases. It is also used to tighten the couplings, both of the cylinders and of the high pressure key.

READING LAMPS FOR LECTURERS.

Reading Lamp to Burn Oil or Candles.

As stereopticon exhibitions are always given in a dark hall, it is necessary for the lecturer who intends to read manuscript, to procure a reading lamp which projects the light upon the printed or written lecture, without spreading the rays, and does not break the darkness of the room.



NO. 153. LECTURER'S READING LAMP.
To Burn Candles.

Price.....\$2.00

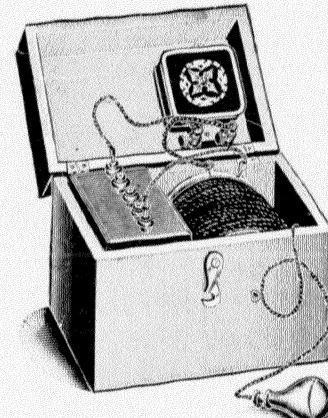
CARBIDE.

NO. 156. Canister containing 10 pounds Calcic Carbide, for making Acetylene Gas.

Price.....\$1.00

NO. 159. Canister containing 5 pounds Calcic Carbide.

Price.....\$0.60



NO. 157. ELECTRIC ANNUNCIATOR OR LECTURER'S SIGNAL.

Price complete.....\$10.00

It consists of 125 feet of conducting wire, running from the operator to the lecturer. The latter holds a push button in his hand, which he presses when the view is to be changed. Two dry cells furnish a current, and a small buzzer placed at the other end of the wire, near the operator gives the signal.



NO. 154.
LECTURER'S READING LAMP.

To Burn Kerosene.

Price.....\$1.00

Per canister....\$1.00

71



NO. 155.
Canister containing Lime Cylinders.

Twelve in box.

PRICE :

Per canister....\$1.00

Cosmorama or Panorama Outfits

FOR PUBLIC EXHIBITIONS AND PEEP SHOWS.

Cosmorama or panorama lenses are round, double-convex lenses of the best quality, of which the 6-inch is generally preferred, being large enough to permit the observer to use both eyes, which is not so easy with lenses of less diameter.

PRICES OF COSMORAMA LENSES:

Double Convex Lens, 7 inches in diameter, each.....	\$3.00
" " 6 " "	2.50
" " 5 " "	2.00
" " 4 " "	1.50
Price of Mountings, to attach lenses to partition, each.....	.30

The purpose of the Cosmorama lens is to enlarge a picture, usually a finely colored print, in such a way that the actual scene stands forward prominently, endowed with all the shapes and forms of reality, much enlarged, instead of being flat like a picture.

This effect is produced by means of a partition that separates the pictures from the observer and places all the pictures in darkness except for a bright light which is cast directly on them by specially designed lamps.

Directions for Arranging the Cormorama Lenses and Pictures

in a museum, a wagon, or other available location.

Mount the lenses in a partition or screen, as shown in the above illustration, placing them about three feet apart and two feet distant from the picture, and at the proper height from the floor to allow a person standing to look through them with ease. If desired, a narrow shelf may be added, raised about two feet from the floor. A powerful light should be cast on the pictures; for this purpose our three-wick lamps as listed in this catalogue are best adapted.

Where the Cosmorama is to be a permanent fixture the partition is generally extended to the ceiling of the room. For a traveling exhibition the above details can be altered at will.

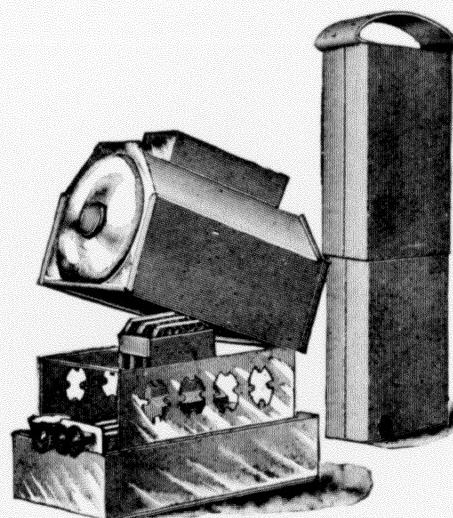
Cosmorama pictures can be furnished in great variety, ranging in price from 20 cents each to \$2.50, according to the size. As stocks vary considerably it is desirable that the customer allow us to select subjects, he specifying the particular kind of view, whether religious, portrait, Civil war, Spanish-American war, etc.

Oil Lamps for Magic Lanterns and Cosmorama Outfits.

The 3 and 4-wick lamps distribute the light uniformly over the screen, making all portions of the picture sharp and distinct. The rising current of the air thoroughly oxygenates the surfaces, their cumulative heat producing combustion, and the free draft aids the rapid escape of the resulting gases up the collapsible chimney. The light will remain steady and unchanged for two hours and more without requiring the slightest attention.

PRICES

No. 120. 3-wick Oil Lamp.....	\$3.25
No. 121. 4-wick Oil Lamp.....	3.90
No. 122. Extra wicks for lamps, per doz	.50
No. 123. Annealed glasses for lamps, each..	.25



NO. 120. 3-WICK OIL LAMP

BLACK TENTS.

Exhibitors who wish to project moving pictures and stereopticon views in the open during warm weather use black tents, which can be made to exclude the light for exhibition purposes.

The following list gives sizes and prices. As they are made to order only, and not carried in stock, remittance is requested with order to cover full value; conditional orders cannot be accepted.

PRICE LIST OF BLACK TENTS.

No. 1. 20x40, with 9-ft. wall, not lined.....	\$70.00	Lined all through....	\$116.00
No. 2. 20x40, with 10-ft. wall, not lined.....	73.00	Lined all through....	124.00
Nos. 1 and 2. Poles and stakes extra.....	13.25		
No. 3. 20x50, with 9-ft. wall, not lined.....	92.00	Lined all through....	152.00
No. 4. 20x50, with 10-ft. wall, not lined.....	94.00	Lined all through....	159.00
Nos. 3 and 4. Poles and stakes extra.....	16.50		
No. 5. 20x60, with 9-ft. wall, not lined.....	116.00	Lined all through....	186.00
No. 6. 20x60, with 10-ft. wall, not lined.....	116.00	Lined all through....	194.00
Nos. 5 and 6. Poles and stakes extra.....	20.00		
No. 7. 24x40, with 9-ft. wall, not lined.....	78.00	Lined all through....	133.00
No. 8. 24x40, with 10-ft. wall, not lined.....	81.00	Lined all through....	140.00
Nos. 7 and 8. Poles and stakes extra.....	16.50		
No. 9. 24x54, with 9-ft. wall, not lined.....	107.00	Lined all through....	180.00
No. 10. 24x54, with 10-ft. wall, not lined.....	111.00	Lined all through....	186.00
Nos. 9 and 10. Poles and stakes extra.....	20.00		
No. 11. 28x48, with 9-ft. wall, not lined.....	106.00	Lined all through....	177.00
No. 12. 28x48, with 10-ft. wall, not lined.....	111.00	Lined all through....	188.00
Nos. 11 and 12. Poles and stakes extra.....	22.00		
No. 13. 30x60, with 10-ft. wall, not lined....	128.00	Lined all through....	216.00
No. 13. Poles and stakes extra.....	22.00		
No. 14. 35x60, with 10-ft. wall, not lined....	144.00	Lined all through....	243.00
No. 14. Poles and stakes extra.....	25.00		
No. 15. 40x60, with 10-ft. wall, not lined....	149.00	Lined all through....	254.00
No. 15. Poles and stakes extra.....	28.00		

These tents up to 28x48 can be made either gable end, both ends like ordinary wall tent, or round end in front and gable end at back.

The last three sizes must be round end tents like side-show tent. All tents made up and roped in regular showman style and first-class in material and workmanship.

Gelatine Sheets for Stage Color Effects.

We carry in stock the finest imported gelatine sheets for stage color effects, in 10 colors. These are as flexible as they can possibly be made, do not split like the domestic article, and give universal satisfaction. They are in use in Keith's theatres, the Orpheon, the Dearborn and many others. We have no inferior grades.

Price of Gelatine Color Sheets, 18x21 inches, per dozen.....\$1.80

Samples mailed on receipt of 2c postage.

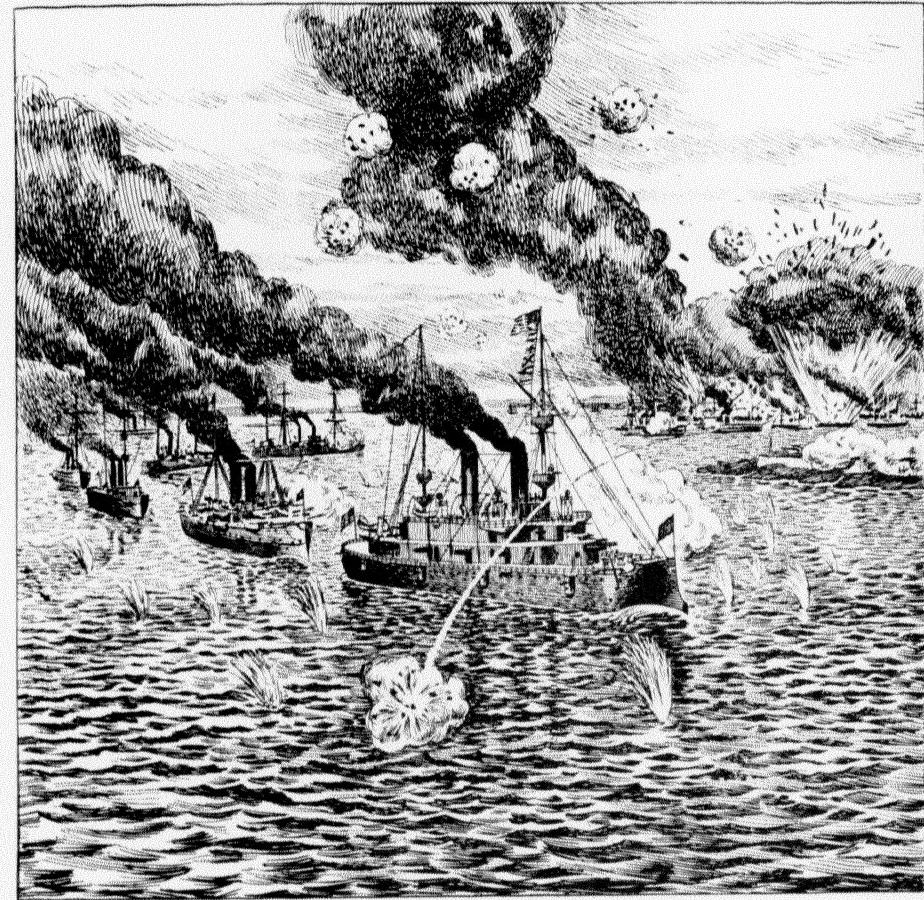
Gelatine Slide Tinters for Stereopticon Use.

These consist of two standard size glass Magic Lantern slips, 3 $\frac{1}{4}$ x4 inches, between which is laid a sheet of gelatine, matted, and bound together. Ten colors can be furnished.

Price, each Tinter Slide.....\$0.15
Price per set of 10 Different Colors.....1.50

Miscellaneous Supplies for the Magic Lantern.

Lime Cylinders for oxy-hydrogen jets, carefully prepared from selected limestone, $\frac{3}{8}$ -inch diameter, packed in lime dust, in air-tight, screw-cap tin canisters, containing 12 cylinders, per canister.....	\$1.00
The Same, Bird Limes, $\frac{3}{4}$ -inch diameter, per canister of 12.....	.75
Chemicals for making oxygen, ready mixed, 10 pounds in canister.....	1.75
Ether, .735 in 1-pound can	1.25
Gasoline, 88, including can, 1 gallon.....	.50
Gasoline, 88, including can, 5 gallons.....	2.00
India Rubber Tubing, per foot.....	.10
Plain Glass Slides, 3 $\frac{1}{4}$ x4 inches, for covering square views, advertising slides, etc., per dozen25
Black Paper Mats, 3 $\frac{1}{4}$ x4 inches, square opening, per dozen.....	.10
Black Binding Papers, gummed, per 10020
Neat Wooden Frames, 4x7 inches, for permanently mounting the square views, for 3 $\frac{1}{4}$ x3 $\frac{1}{4}$ or 3 $\frac{1}{4}$ x4 views, as preferred, each.....	.15
Sensitized Photo Plates, 3 $\frac{1}{4}$ x4 inches, for making slides.....	.55
Calcic Carbide, per 10-pound cans	1.00
Calcic Carbide, per 5-pound can.....	.60
Cylindrical Records for phonograph, each.....	.50
Cylindrical Records for Concert Phonograph, each.....	1.00



No. 200. POSTER CUT OF NAVAL BATTLE.

Reduced in Size. Size of Original, 11x11 Inches.

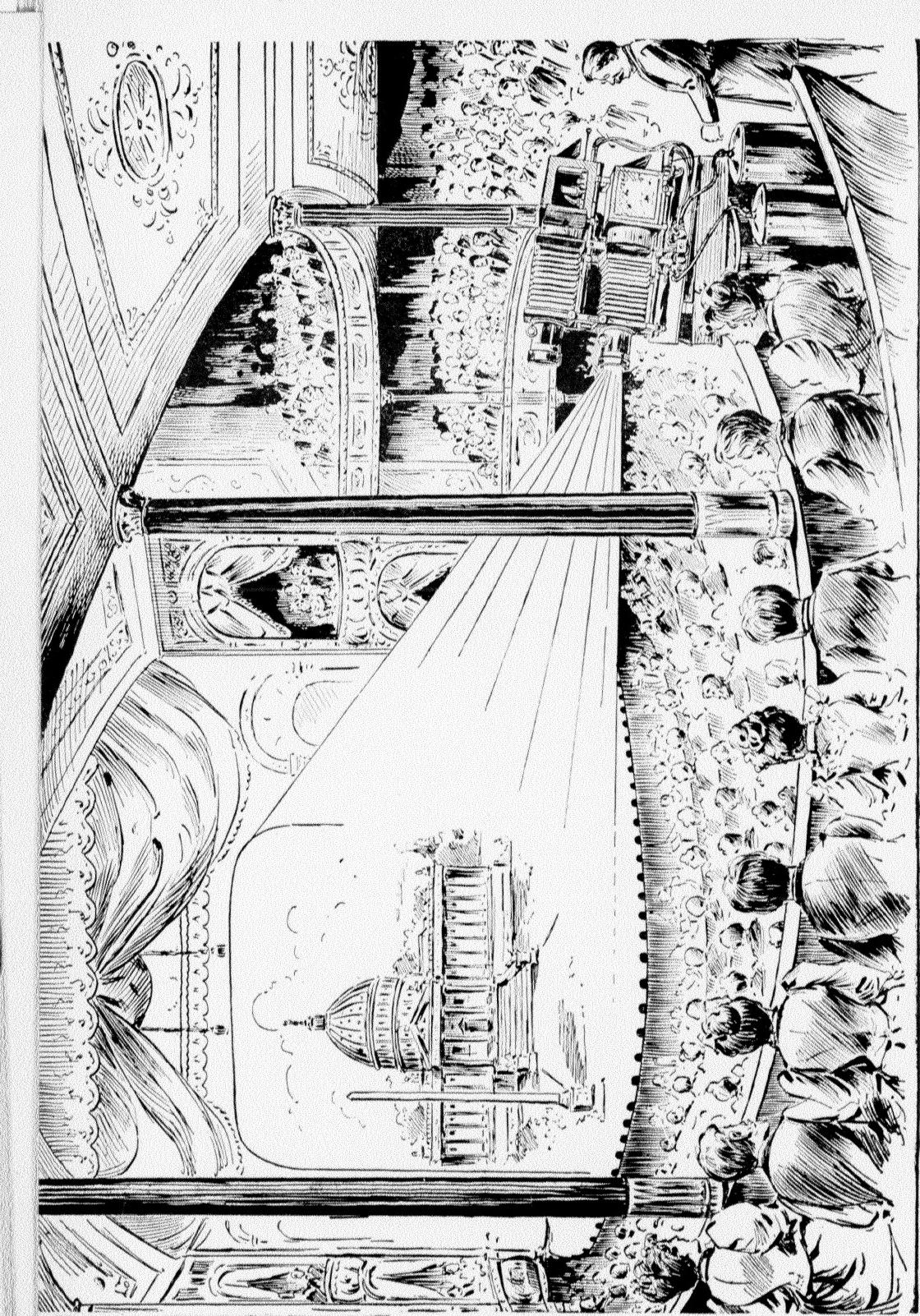
Posters with this cut printed to order only, in lots of 1,000 or more, with customer's wording if preferred.

PRICE OF POSTERS WITH ABOVE ILLUSTRATION (11x11 inches in size):

Size of poster, 18x24 inches, black letters on colored paper, per 1,000.....	\$6.00
Per 2,000	10.00
Per 100	1.00
Same illustration, poster 24x36 inches, black letters on colored paper, per 1,000	12.00
Same illustration, poster 24x36 inches, printed in two colors on tinted paper, per 1,000	15.00

This Cut may be Used in Combination with Others Listed.

Samples mailed on request, enclosing 2-cent stamp.



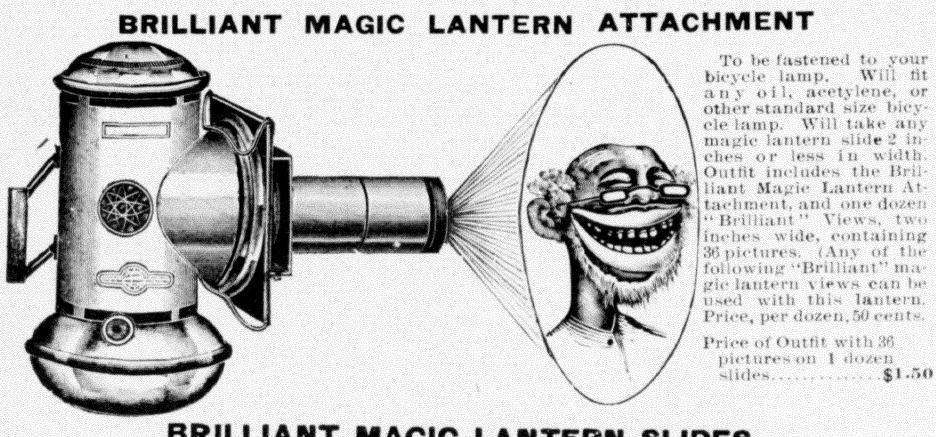
76

No. 203. Poster cut for Stereopticon Exhibition. Size of original, 8 $\frac{5}{8}$ inches. See following pages.



77

No. 204. Poster cut for Talking Machines. Size, 7 $\frac{4}{5}$ inches. See following pages.



BRILLIANT MAGIC LANTERN ATTACHMENT

To be fastened to your bicycle lamp. Will fit any oil, acetylene, or other standard size bicycle lamp. Will take any magic lantern slide 2 inches or less in width. Outfit includes the Brilliant Magic Lantern Attachment, and one dozen "Brilliant" Views, two inches wide, containing 36 pictures. (Any of the following "Brilliant" magic lantern views can be used with this lantern. Price, per dozen, 50 cents.

Price of Outfit with 36 pictures on 1 dozen slides..... \$1.50

BRILLIANT MAGIC LANTERN SLIDES.

These slides are beautiful and realistic productions giving a class of pictures never before offered in anything but high-priced slides. The character of the pictures is both amusing and instructive. The comic pictures are very funny. The scenery, noted places, historical productions and portraits are all taken from the best photographs, drawings and paintings of our times, and they can be relied upon as being correct in every detail.

Each series is put up according to this list; sets will not be broken or single slides sold.
The Brilliant Slides are two inches wide and can be used in any magic lantern having this size holder—



Price 50 cents per series containing 36 pictures.

SERIES H. BIBLE VIEWS.

- | | | |
|---|---|--|
| 1. Adam and Eve in the Garden. | 12. David and Goliath. | 24. Christ and the Centurion. |
| 2. Lot's Wife Turned into a Pillar of Salt. | 13. Abraham Sacrificing Isaac. | 25. Christ Raising Jarius' Daughter. |
| 3. Jacob's Dream. | 14. Bears Tearing the Children. | 26. The Transfiguration. |
| 4. Joseph Sold. | 15. Moses Striking the Rock. | 27. Triumphant Entry into Jerusalem. |
| 5. Joseph Making Himself Known to His Brethren. | 16. Birth of Christ. | 28. The Crown of Thorns. |
| 6. Joseph Meets His Father. | 17. Flight to Egypt. | 29. Bearing the Cross. |
| 7. Ruth and Naomi. | 18. Driving the Money Changers from the Temple. | 30. The Crucifixion. |
| 8. The Three Men in the Furnace. | 19. Lazarus and the Rich Man. | 31. The Resurrection. |
| 9. Daniel in the Lion's Den. | 20. The Loaves and Fishes. | 32. The Ascension. |
| 10. Moses Found in the Bullrushes. | 21. The Wise and Foolish Maidens. | 33. Stoning of Stephen. |
| 11. Jonah and the Whale. | 22. Christ Raising the Widow's Son. | 34. Peter Delivered from Prison. |
| | 23. The Sower. | 35. Beheading of Paul. |
| | | 36. Persecution of the Early Christians. |

Series A—Notable Places, 50 cents.

Series C—Comic, 50 cents.

Series D—Thrilling Adventures by Land and Sea, 50 cents.

Series E—War Views, 50 cents.

Series H—Bible Views, 50 cents.

Series I—Comic, 50 cents.

Series P—Comic, 50 cents.

STANDARD VIEWS FOR THE STEREOPTICON AND MAGIC LANTERN

A complete descriptive list of Edison moving picture films will be sent on application.



2008C. THE WATER BABIES. Colored, Price \$1.00.

Including a number of novelties, as well as a series of popular subjects; and a partial list of

EDISON MOVING PICTURE FILMS.

Unless otherwise stated, all slides included in the following list are of standard size, 3 1/4 x 4 inches; they are photographs on glass, with protecting cover glass, matted and bound.

In ordering slides, customers are requested to give page number and price, to avoid confusion, many of the views being listed in several qualities at different prices.

Views for the Stereopticon Made to Order.

We make views to order, standard size, unmounted, $3\frac{1}{4} \times 4$ inches, or mounted in wood 4×7 . Any photograph, newspaper print, book plate or drawing can be copied. Plain black and white prints make better slides than colored prints. These slides can be colored if desired.

PRICES.

Slides to order, uncolored, $3\frac{1}{4} \times 4$ inches, from photograph, including negative and one slide, each	\$0.50
Slides to order, colored, $3\frac{1}{4} \times 4$ inches, from photograph, etc., each	1.00
Slides, colored, coloring only, each 75 cents and	.50

Public Announcements With the Stereopticon.

Election Bulletins, Advertisements, stage Notices, Etc.

We are in constant receipt of letters of inquiry seeking information as to the proper manner of making advertising slides to be projected in public places, against the outer walls of buildings, or in theatres and halls, by means of a stereopticon. We have given much thought and labor to this subject and have evolved several methods that will answer this purpose satisfactorily.

For the purpose of projecting announcements of temporary interest, that is to say, written matter which is to be frequently changed, such as election bulletins, stage announcements, etc., we recommend our new system of

Typewriter Bulletins

for which we furnish a transparent flexible material, which is manufactured for us in Germany. These plates are made in standard slide size, $3\frac{1}{4} \times 4$ inches.

They are placed in the typewriter and the announcement written in the ordinary way as it would be on paper.

We furnish a prepared powder which is sprinkled on these announcements to intensify the letters; the flexible plate is then placed between two glass slips of the regular lantern slide size and placed in the carrier of the stereopticon like an ordinary slide.

The merit of this system lies in the fact that the letters are clear cut, and when projected on the curtain are very legible; at the same time the compactness of the writing enables the operator to show much more matter upon his curtain than is possible when the announcements are written in ink. This method has been used with great success by the "Chicago American" for its election and other stereopticon bulletins, which paper has the exclusive rights in Chicago.

Prices of Specially Prepared Election Bulletin and Advertising Plates for use with Typewriter, per dozen, 50c; per hundred.....\$2.50
Prepared Powder for Intensifying Typewriter Letters, per ounce20

Plain Glass Slips For Announcements.

Exhibitors that wish to prepare announcements either for advertising or other purposes in the simplest manner can do so by purchasing ordinary plain glass slides, standard size slide, $3\frac{1}{4} \times 4$ inches, and a bottle of liquid India ink. Announcements can be written on these plates with an ordinary pen and are to be placed in a slide carrier in the same manner as ordinary slides.

Price of Plain Glass Slips, $3\frac{1}{4} \times 4$ Inches, for Advertising and Announcements, per dozen \$0.25
Liquid India Ink, per bottle25
Hair Line Writing Pen for Writing Announcements on Glass, with Holder, each05

About the Coloring of Stereopticon Views

As many buyers of stereopticon slides are unfamiliar with the subject of their coloring, we offer a few words of explanation.

All stereopticon views that are sold colored are colored by hand. This applies to every grade—good, bad and indifferent. There is no mechanical process by which slides can be colored.

The vast difference that exists between various colored slides is due to the expertness or inefficiency of the colorist. A high-class slide colorist is an artist; a cheap colorist is a mechanic. The one works for effect on his slides, putting in every tint that his experience and artistic sense suggest; giving talent and often genius to the work; throwing his individuality and his ideas into his brush. His product is as different from that of other colorists as are the paintings of a Meissonier from those of a dauber. It is the work of such colorists that distinguishes the slides of Stoddard, Burton Holmes and other careful lecturers from those of men who sacrifice everything to cheapness. The other class of artists, often consisting of unpracticed girls, who perform their labor for a small sum per week, is worked under pressure, lacks the artistic sense as well as the ability to handle a brush properly, and is expected to turn out a fixed quantity of slides per day, as a brick layer is expected to lay a certain number of bricks. They begin and end as apprentices to the trade.

There are various grades of merit between the two extremes; but the vast majority of colored slides that are sold at a very cheap price are of the apprentice variety. When one colored slide is offered at 50c and another at \$1 there is a difference in quality between them. When one dealer offers his "best" colored slides at 50 cents, it is a safe premise that his best is another dealer's worst.

The highest price that can be asked for coloring a slide is cheap when one considers the character of the work and the value of the artist's time; current prices for good coloring are made possible only by the experience and rapidity that the colorist gains by devoting his energies exclusively to such work. A good colorist can do much more work and infinitely better than a poor slide painter, in a given time. But his pay is much higher.

The coloring of slides that are listed in the catalogue is cheaper for the best quality than that of special slides colored to order, because the colorist is familiar with the one, while the other usually calls for extra effort and time.

Slides used for coloring are the same as those sold plain; the coloring has been added to the plain side. A first quality plain slide will make a better colored slide than a second quality, even though the coloring be the same. A good negative will make a better slide than a poor one; a wet plate or collodion slide is more transparent and sparkling than a dry plate, but is more difficult to make in the first place and requires special knowledge for coloring. Only expert colorists can color wet plate slides.

Business Advertisements.

Price, per Colored Slide, 75 cents each.



No. 115. Advertising Slide for "Restaurant." Other designs can also be had for same subject.

We have gone to considerable expense in preparing sets of designs to be used for business advertising in connection with a stereopticon which will be found original and very attractive. The life of good advertising lies in arresting the attention of the passer-by. The stereopticon views that we have prepared for this purpose accomplish the object in a striking manner. Each slide has a blank space in which the name and address of the particular business to be advertised is written, which is done by means of an ordinary writing pen and liquid India ink. The letters when so written dry rapidly.

Each of these slides is made attractive either by some appropriate cartoon, comic drawing, or fancy lettering.

We have sought in our list of titles to cover practically every business that is apt to be advertised. Customers that wish to cover special lines which are not found in the list printed below are requested to inform us of the kind of business that they desire to advertise, and we will make up special slides to fill the requirements.

These views are sold colored only in order to make them more attractive and effective and customers can feel assured that announcements made with these slides will attract the attention of everybody within sight of the curtain.

We can furnish small blue print photographs of advertising slides, about 250 views, each of which can be had in colored slide form. Price of complete set of blue prints, 25 cents.

Business Advertisements—Continued.

We can furnish illustrated advertising slides for the following lines of business. Special slides made to order from our own design.



No. 11. Advertising Slide of "Clothing." Other designs of same subject on hand.

List of Special Advertising Slides, with Cartoon, Comic Drawing or Fancy Lettering on each; blank space for Name and Address.

Standard Lantern Slides, 3 1/4 x 4 Inches. Price per Slide, colored, 75c.

1. Art Gallery.
2. Boots and Shoes.
3. Blacksmith.
4. Business College.
5. Buffet.
6. Barber Shop.
7. Bric-a-Brac.
8. Books.
9. Balloon.
10. Bakery.
11. Clothing.
12. Confectionery.
13. Cigars and Tobacco.
14. Cafe.
15. Crockery.
16. Contractor.
17. Coal Yard.
18. Coal and Wood.
19. Cards.
20. Consumption Cure.
21. Catarrah Cure.
22. Chiropodist.
23. Clocks.
24. Department Store.
25. Detective Agency.
26. Dray.
27. Diamonds.
28. Delicacy Store.
29. Deafness Cured.
30. Dentist.
31. Entertainment.
32. Expressing.
33. Eye and Ear Specialist.
34. Farm Seed.
35. Farming Implements.
36. Furniture.
37. Fair.
38. Florist.
39. Frames.
40. Grocery.
41. Gas Fixtures.
42. Grocery and Market.
43. Hats and Caps.
44. Harness and Saddlery.
45. Hotel.
46. Hardware.
47. Haberdasher.
48. Insurance Agency.
49. Ice Cream Parlor.
50. Kidney Cure.
51. Live Stock.
52. Liquors.

Business Advertisements—Continued.

- 53. Livery Stable.
- 54. Laundry.
- 55. Loan Office.
- 56. Lunch Counter.
- 57. Lumber Yard.
- 58. Millinery.
- 59. Market.
- 60. Musical Instruments.
- 61. Manicuring Parlor.
- 62. Moving Van.
- 63. Newsstand.
- 64. Oyster House.
- 65. Opticians.
- 66. Physicians.
- 67. Ploughs, Etc.
- 68. Pianos.
- 69. Plumbing.
- 70. Pawn Broker.
- 71. Patrol.
- 72. Printing Company.
- 73. Portraits.
- 74. Photographic Studio.
- 75. Restaurant.
- 76. Real Estate.
- 77. Refreshments.
- 78. Soda Fountain.
- 79. Specialists.
- 80. Surgical Instruments.
- 81. Stationery.
- 82. Santa Claus.
- 83. Toys.
- 84. Wind Mills.
- 85. Watches.

Price of Special Advertising Slides, with Original Designs, Sold Colored only, 75c each.

On receipt of sufficient remittance to cover express charges we will ship a quantity of these slides C. O. D., with the privilege of selection in the express office. This will enable customers to select the most appropriate slides for their purpose. On some lines of business we have from 3 to 6 different slides covering the same subject.

Special Views

Standard Size, 3½x4 Inches, Beautifully Colored. Price, \$1.00 Each.

No. 2001M. Our Banner in the Sky.

A handsomely colored woodland scene, showing a hill in the background, the sky shows stars and clouds that are naturally arranged to represent the stars and stripes of an American flag.

No. 2002M. State Street, Chicago, at Night, beautifully illuminated, taken during the Fall Festival, showing a myriad of electric lights. A beautiful effect.

No. 2003K. The Eagle Perched on Shield, draped with American flag. A new design showing an eagle replete with life, perched on a shield with the American colors.

No. 2004K. A Series of Flower Studies, in vases, etc., 30 slides in the series.

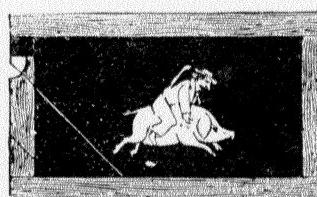
It is difficult to describe these beauties. They will be sent C. O. D. for inspection and selection on request and receipt of express charges.

No. 2005K. A Series of Grotesque Slides, sometimes projected on skirt dancers. They include butterflies, snakes, owls, dragons, frogs, birds, etc. Price, handsomely colored, \$1 each; colored and background blacked out, \$1.25 each. Will be shipped under same conditions as No. 2004K series.

No. 2006M. The English and American Flags with graceful folds flung to the breeze; on one slide, staffs crossed.

No. 2007M. Uncle Sam.

No. 2008C. Water Babies.



Movable
Comic
Views



On Slides, 4x7 Inches.

Highly Colored, with Fantastic Life-Like and Unexpected Motions to the Figures.

The Movement is produced by a portion of the Figure being painted on a glass plate which is quickly drawn to one side, giving the above effect.

Price 55 cents each. \$6.00 per dozen.

Movable Comic Views—Continued.

- 11. Bull Tossing Dog.
- 22. Boy and Gunpowder Barrel.
- 57. Girl Skipping.
- 59. Tailor and Goose.
- 60. Vesuvius in Eruption.
- 65. Sailor Dancing.
- 72. Blacksmith at Work.
- 81. Man Swallowing Rats.
- 81a. Goodnight in Wreath of Flowers.
- 93. Boy Riding Pig.
- 124. Fisherman Tossed by Bull.
- 136. Magic Rose Plant.
- 144. Irishman Dancing.
- 147. Woman With Growing Nose.
- 150. Magician and Ghost.
- 154. Boy Bird's-Nesting.
- 166. Farmer Carrying Pig.
- 169. Lovers in Boat.
- 245. Man Shaving, and Cat.
- 248. Organ Man and Monkey.
- 259. Man and Lions.
- 262. Boy and Sugar Cask.
- 282. Woman Shaving Man.
- 297. Domestic Shower Bath.
- 300. Trespasser and Bull.
- 315. Cook and Flying Goose.
- 333. Shoeing Horses.
- 335. Man and Donkeys' Tails.
- 336. Elephant Tossing Keeper.
- 340. Robbing the Eagle's Nest.
- 353. "Don't You Wish You May Get It?"
- 354. Boy Letting off Cannon.
- 370. Flying Trapeze Performance.
- 395. Pure Milk from the Pump.
- 399. Nearing Shore (Dog with Child in Water).

These Movable Comic Views add Life and Humor to any kind of a Stereopticon Exhibition. They will fit any Magic Lantern that takes Standard Views.

Illustrated Song Slides.

The great popularity of stereopticon views specially posed to illustrate popular songs, which are used in practically every high-class vaudeville theatre in the country, has created a demand for these slides which is constantly increasing. They are largely used by public singers to give added interest to the words of their songs, as well as to illustrate poems, etc., when recited in public.

Public exhibitors who use a phonograph to sing or recite the words, in lieu of a singer, can obtain phonograph records to accompany many of the song slides. In this case it is usually unnecessary to buy large sets of slides; about 8 slides being sufficient for each record.

To facilitate ordering, those song slides for which Edison records can be furnished are marked "Rec."

SHIPMENTS.

We cannot always ship slides immediately upon receipt of order. The older sets are not carried in stock, and the demand for new ones is so great that we cannot always keep them on hand. We make every effort to ship slides immediately.

Slides are securely packed, and no allowance will be made for breakages. If slides do not arrive in good order, make complaint to the express company, also notify us and we will do the same.

Every slide sent out is inspected, and should be free from imperfections, spots or blemishes of any kind.

List of Illustrated Song Slides.

These are sold colored only; price 50 cents each slide. The following sets include a title slide, for which there is no charge.

- A Picture Without a Frame—20 slides.
- A Bird in a Gilded Cage—18 slides Rec.
- Childhood's Happy Days—18 slides.
- Absence Makes the Heart Grow Fonder—20 slides.
- Break the News to Mother—18 slides Rec.
- Blue and the Gray—18 slides Rec.
- Don't Let Her Lose Her Way—14 slides Rec.
- Girl I Loved in Sunny Tennessee—16 slides Rec.
- Hello, Central; Give Me Heaven—18 slides Rec.
- Home, Sweet Home—5 slides Rec.
- He Laughs at Scars, who Never Knew a Wound—19 slides.
- I've a Longing in My Heart for You, Louise—21 slides Rec.
- In the House of Too Much Trouble—17 slides Rec.
- I Wonder if the Old Folks Think of Me—15 slides.
- I Love You in the Good Old-Fashioned Way—21 slides.
- If I Had a Girl Like You—15 slides.
- If You Want to Go, Ma Honey, Why You Can—19 slides Rec.
- In the Baggage Coach Ahead—17 slides Rec.
- Just a Chain of Daisies—16 slides.
- Just Set a Light—11 slides Rec.
- Just Tell Her that I Loved Her, Too—13 slides.
- Just at the Close of Day—16 slides.
- Just as the Sun Went Down—13 slides Rec.
- Just at the Turn of the Tide—20 slides.
- Just Behind the Times—21 slides Rec.
- Last Night as the Moon was Shining—21 slides.
- Like a Bird with a Broken Wing—25 slides.
- Letter Edged in Black—16 slides.
- Mid the Orange Trees and Blossoms She is Waiting—18 slides.
- Marching with Sherman to the Sea—18 slides.
- Mid the Green Fields of Virginia—18 slides Rec.
- My Old New Hampshire Home—14 slides Rec.
- My Dear Old Southern Home—22 slides.
- My Heart's To-Night in Texas.
- Place a Light to Guide Me Home—24 slides.
- Paint Me a Picture of the Old Fireside —15 slides.
- Pliny Come Kiss You Baby (Coon Song), Comic—21 slides Rec.
- Please Leave the Gate Ajar—21 slides.
- Sweet Jennie Lee—17 slides.
- Somebody's Darling Long Ago—18 slides.
- She's Sleeping by the James—15 slides.
- Shanty of Tumbledown Alley—17 slides.
- Sleep, Ma Honey, Sleep—17 slides.
- Sing Me a Song of the South—15 slides.
- She Was Bred in Old Kentucky—14 slides Rec.
- Star and the Flower—21 slides.
- Sing Me a Song of Other Days—15 slides.
- The Day that You and I First Met—17 slides.
- The Little Room Where Baby Used to Sleep—17 slides.
- The Little Place that I Call Home—18 slides.
- The Mountain's Fairest Flower—20 slides.
- The Old Postmaster—18 slides.
- They Were Thinking of the One Who Passed Away—13 slides.
- Tis Not Always Bullets that Kill—21 slides.
- The Tie that Binds—26 slides.
- Tobie, I kind a Likes You—23 slides.
- Why Did They Sell Killarney?—16 slides.
- When the Birds Go North Again—20 slides.
- When the Harvest Days Are Over—17 slides.
- Will I Find My Mamma There?—16 slides Rec.

Sacred Songs. (No Title Slides).

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- Abide With Me—12 slides Rec.
- God Be With You Till We Meet Again —5 slides.
- Holy City—17 slides Rec.
- Jesus Lover of My Soul—9 slides Rec.
- Lead Kindly Light—4 slides Rec.
- Nearer My God to Thee—12 slides Rec.
- New Born King—12 slides Rec.
- Ninety and Nine—6 slides Rec.
- Onward, Christian Soldiers—4 slides.
- Pull for the Shore—6 slides.
- Return, O Wanderer—3 slides.
- Rock of Ages—12 slides Rec.
- Stand Up for Jesus—8 slides Rec.
- Tell Me the Old, Old Story—5 slides.
- The Great Physician—7 slides.
- The Lost Chord—9 slides.
- Throw Out the Life Line—5 slides.
- Work for the Night is Coming—6 slides.
- Yield Not to Temptation—6 slides Rec.
- Where Is My Wandering Boy To-Night —6 slides Rec.
- From Greenland's Icy Mountain—12 slides.
- Let the Lower Lights Be Burning—4 slides.
- Onward, Christian Soldiers—4 slides.

Songs That Never Grow Old

Price, 50 cents each, colored.

- Swanee River—8 slides Rec.
- Old Kentucky Home—6 slides Rec.
- Old Oaken Bucket—3 slides Rec.
- Old Black Joe—6 slides Rec.
- Marching Thro' Georgia—12 slides Rec
- Old Kentucky Home—6 slides Rec.
- Tenting on the Old Camp Ground—5 slides Rec.
- Red, White and Blue—4 slides Rec.
- Yankee Doodle—6 slides Rec.
- The Bridge—4 slides.
- America—9 slides Rec.

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LIFE OF CHRIST

By Tissot.

The price of the slides is as follows:
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The list follows the chronological order adopted by M. Tissot.

- A. Our Lord Jesus Christ.
- 1. Zacharias and Elizabeth.
- 2. The Vision of Zacharias.
- 270. The Annunciation.
- 3. The Virgin Mary in Her Youth.
- 4. The Visitation of Elizabeth and Mary.
- 5. The Magnificat.
- 6. Joseph Seeks a Lodging in Bethlehem.
- 7. The Adoration of the Shepherds.
- 8. The Presentation of Jesus in the Temple.
- 9. The Wise Men Journeying to Bethlehem.
- 10. The Wise men and Herod.
- 11. The Wise Men Present Their Gifts.
- 12. The Massacre of the Innocents.
- 13. The Flight into Egypt.
- 14. The Sojourn in Egypt.
- 15. The Return from Egypt.
- 16. Jesus and His Mother at the Fountain.
- 17. Jesus Sitting in the Midst of the Doctors.
- 18. Jesus Found in the Temple.
- 19. The Youth of Jesus.
- 20. The Voice Crying in the Wilderness.
- 21. The Winnowing.
- 22. John the Baptist and the Pharisees.
- 23. John the Baptist Sees Jesus from Afar.
- 24. The Baptism of Jesus.
- 25. Jesus Taken Up into a High Mountain.
- 26. The Temptation in the Wilderness.
- 27. St. John the Evangelist.

Tissot's Life of Christ—Continued

- 28. Angels Came and Ministered Unto Him.
- 29. The Calling of Andrew and John.
- 30. The Calling of Peter and Andrew.
- 31. The Calling of James and John.
- 32. Nathanael Under the Fig Tree.
- 33. The Betrothed of Cana.
- 34. The Marriage of Cana of Galilee.
- 35. Jesus Goes Up to Jerusalem.
- 36. Christ Talks with Nicodemus.
- 37. The Man with an Infirmity of Thirty and Eight Years.
- 38. An Angel Troubled the Waters.
- 39. Jesus and the Woman of Samaria at Jacob's Well.
- 40. And They Led Him Unto the Brow of the Hill.
- 41. Healing of Peter's Mother-in-law.
- 42. In the Villages the Sick were brought unto Him.
- 43. "Thou Fool! this Night Thy Soul Shall be Required of Thee."
- 44. Jesus Went Out Into a Desert Place.
- 45. Jesus Teaching in the Synagogue.
- 46. The Healing of the Ruler's Son.
- 27. Jesus Preaching from a Boat.
- 47. The First Miraculous Draught of Fishes.
- 48. Jesus Healing the Lame and the Blind on the Mountain.
- 49. The Healing of Leper at Capernaum.
- 50. Jesus Teaching the People by the Seashore.
- 51. The Calling of Matthew.
- 52. The Parable of the Piece of Silver.
- 53. Jesus Sat at Meat with Matthew.
- 54. Christ Healing the Withered Hand.
- 55. The Pharisees and Herodians Take Counsel Against Jesus.
- 56. The Ordaining of the Twelve Apostles.
- 57. The Two Women at the Mill.
- 58. "And When Ye Come Unto an House, Salute It."
- 59. Christ Sleeping During the Storm.
- 60. Christ Stilling the Tempest.
- 61. And All the City Gathered Together at the Door.
- 62. The Two Men Possessed with Unclean Spirits.
- 63. The Legion of Evil Spirits Drive the Swine into the Sea.
- 64. The Raising of Jairus' Daughter.
- 65. Jesus Preaching by the Seaside.
- 66. Christ Healing the Blind and Dumb Man.
- 67. She Only Touched the Hem of His Garment.
- 68. Lord, I Am Not Worthy.
- 69. The Man with an Unclean Spirit in the Synagogue.
- 70. Raising of the Widow's Son at Nain.
- 71. Healing of the Canaanite's Daughter.
- 72. The Sick Waiting for Jesus to Pass By.
- 73. The Sower.
- 74. Christ Eating in the House of the Pharisees.
- 75. Christ Bids His Disciples to Rest Awhile.
- 76. The Palsied Man Let Down Through the Roof.
- 77. The Sermon on the Mount.
- 78. Lazarus at the Rich Man's Door.
- 79. The Dumb Man Possessed of the Devil Healed at Capernaum.
- 80. Christ's Exhortation to the Twelve Apostles.
- 81. Herod.
- 82. The Miracle of the Loaves and the Fishes.
- 83. The People Seek Christ to Make Him King.
- 84. Christ Going Out Alone Into a Mountain to Pray.
- 85. Christ Walking on the Sea.
- 86. "Ye Seek Me, Not Because Ye Saw the Miracles, but Because Ye Did Eat of the Loaves."
- 87. Christ Reproving the Pharisees.
- 88. The Pharisees and Sadducees Come to Tempt Jesus.
- 89. The Healing of the Crooked Woman, III for Eighteen Years.
- 90. The Transfiguration.
- 91. Healing of the Young Man, Possessed of a Devil, at Mount Tabor.
- 92. Christ Sending Out the Seventy Disciples, Two by Two.
- 93. "The First Shall be Last."
- 94. Jesus and the Little Child.
- 95. "Get Thee Behind Me, Satan."
- 96. Mary Magdalen Before Her Conversion.
- 97. Mary Magdalen Repentant.
- 98. Jesus Passing Through the Villages, on His Way to Jerusalem.
- 99. "The Rich Young Man Went Away Sorrowful."
- 100. The Healing of Ten Lepers.
- 101. Christ at Bethany, in the House of Martha.
- 102. Mary at the Feet of Jesus.
- 103. The Lord's Prayer.
- 104. But No Man Laid Hands on Tim.
- 105. The Women Saken in Adultery, Jesus Writing Upon the Ground.
- 106. "And Jesus Was Left Alone, the Woman Standing in the Midst."
- 107. Christ Preaching Near the Treasury.
- 108. The Blind Man Washes in the Pool of Siloam.
- 109. The Blind Man Tells His Story to the Jews.
- 110. The Good Samaritan.
- 111. "Then Took They Up Stones to Cast at Him."
- 112. Jesus Walking on Solomon's Porch.
- 113. The Pharisee and the Publican.
- 114. The Wise Virgins.
- 115. The Foolish Virgins.
- 271. "Jesus Wept."
- 116. The Raising of Lazarus.
- 117. The Prodigal Son Asking Alms.
- 118. The Return of the Prodigal Son.
- 119. "Suffer Little Children to Come Unto Me."
- 120. Zaccheus in Sycamore Tree.
- 121. Healing of Two Blind Men at Jericho.
- 122. "The Ass Tied, and the Colt with Her."
- 123. Jerusalem from the Mount of Olives.
- 124. "And Beholding the City, He Wept Over It."
- 125. The Procession in the Streets of Jerusalem.
- 126. The Children's Hosannas in the Temple.
- 127. The Chief Priests Take Counsel Together.
- 128. Christ Driving Them Out that Sold and Bought from the Temple.
- 129. Jesus Forbids the Carrying of Loads in the Temple.
- 130. The Healing of the Lame in the Temple.
- 131. The Gentiles Ask to See Jesus.
- 132. The Voice from Heaven During Holy Week.
- 133. The Chief Priests Ask, "By What Authority Doest Thou These Things?"
- 134. Jesus Points to the Corner Stone.
- 135. The Tribute Money.
- 136. The Pharisees Question Jesus.
- 137. "Woe Unto You, Scribes and Pharisees!"
- 138. "Jerusalem! Jerusalem!"
- 139. The Widow's Mite.
- 140. "Master, See What Manner of Stones and What Buildings Are Here."
- 141. Christ Foretelling the Destruction of the Temple.
- 142. The Alabaster Box of Very Precious Ointment.
- 143. The Jews Conspire Together.
- 144. Judas Goes to the Chief Priests and Betrays His Master.
- 145. The Man Bearing a Pitcher.
- 146. The Jews' Passover.
- 147. Judas Dipping His Hand in the Dish.
- 148. Jesus Washing His Disciples' Feet.
- 149. The Communion of the Apostles.
- 150. The Last Discourse of Our Lord.
- 151. But Peter Said Unto Him: "Although All Shall Be Offended, Yet Will Not I."
- 152. "My Soul Is Exceeding Sorrowful Unto Death."
- 153. The Agony in the Garden.
- 154. "Could Ye Not Watch with Me One Hour?"
- 155. Judas, and with Him a Great Multitude with Swords and Staves.
- 156. The Judas Kiss.
- 157. They Went Backward and Fell to the Ground."
- 158. Christ Healing the Ear of Malchus.
- 159. The False Witnesses.
- 160. The First Denial of Peter.
- 161. The Second Denial of Peter.
- 162. Annas and Caiphas.
- 163. The High Priest Rends His Clothes. Jesus Is Condemned to Death.
- 164. Jesus Turned and Looked at Peter.
- 165. Peter Went Out and Wept Bitterly.
- 166. Christ Buffeted and Mocked in the House of Caiphas.
- 167. Jesus in Prison.
- 168. The Morning Judgment of Jesus.
- 169. Judas Repents and Returns the Money.
- 170. Jesus Led from Caiphas to Pilate.
- 171. Pilate Questions Jesus.
- 172. The Message of Pilate's Wife.
- 173. Jesus Led Back from Herod to Pilate.
- 174. The Scourging.
- 175. The Scourging on the Back.
- 176. The Crown of Thorns.
- 177. "Ecce Homo!"
- 178. "Let Him Be Crucified!"
- 179. Pilate Washes His Hands.
- 180. The Holy Star.
- 181. The Forum: Site of the Gabbatha. Jesus Hears His Death Sentence.
- 182. The Judgment on the Gabbatha.
- 183. The Inscription on the Cross.
- 184. "And They Put Him On His Own Raiment."
- 185. Christ Bearing the Cross.
- 186. Christ Falls Beneath the Cross.
- 187. Simon the Cyrenian Compelled to Bear the Cross with Jesus.
- 188. The Procession Nearing Calvary.
- 189. The Holy Women Stand Afar Off.
- 190. Jesus Stripped of His Raiment.
- 191. The Wine Mixed with Myrrh.
- 192. The First Nail.
- 193. Nailing of the Feet.
- 194. The Raising of the Cross.
- 195. The Wedging of the Cross.
- 196. Head of Jesus on the Cross.
- 197. The Pardon of the Penitent Thief.
- 198. "And They Parted His Raiment and Cast Lots."
- 199. "And Sitting Down, They Watched Him There."
- 200. What Our Saviour Saw from the Cross.
- 201. The Weeping Mother at the Cross.
- 202. "Eloi, Eloi, lama Sabacthani!"
- 203. "I Thirst!" The Vinegar to Jesus.
- 204. "It Is Finished."

Tissot's Life of Christ—Continued

205. The Death of Jesus.
 206. The Crowd Leave Calvary, Smiting Their Breasts.
 207. The Earthquake at the Crucifixion.
 208. Confession of the Centurion.
 209. "One of the Soldiers with a Spear Pierced His Side."
 210. The Pagan Temple Built by Hadrian on the Site of Calvary.
 211. Jesus Alone on the Cross.
 212. Joseph of Arimathea Begs the Body of Christ from Pilate.
 213. The Body Taken from the Cross.
 214. The Anointing Stone.
 215. Jesus Carried to the Tomb.
 216. The Resurrection.
 217. Mary Magdalene and the Women at the Tomb.
 218. Mary Magdalene Tells the Disciples that the Body of Christ is No Longer in the Tomb.
 219. Peter and John Run to the Tomb.
 220. Christ Appears to Mary Magdalene.
 221. Christ appears to Peter.
 222. Christ Appears to the Holy Women.
 223. Jesus Joins the Disciples on the Road to Emmaus.
 224. He Appeared to the Eleven as They Sat at Meat.
 225. Christ Appears to the Disciples on the Edge of the Sea.
 226. Peter Casts Himself Into the Sea.
 227. The Second Miraculous Draught of Fishes.
 228. Christ Eating With His Disciples After the Resurrection.
 229. "Feed My Lambs."
 230. The Ascension from the Mount of Olives.
 231. The Ascension.

PASSION PLAY OF 1900.

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 Price, colored each.....1.00

1. The Chorus.
2. Director of the Chorus.—Jacob Rutz.
3. Tableau—Expulsion from Paradise.
4. Tableau—Adoration of the Cross.
5. Christ—Head. Anton Lang.
6. Christ— $\frac{3}{4}$ figure.
7. Christ—Full figure.
8. Christ—Full figure. Arm uplifted.
9. Mary, Mother of Jesus. Bust. Anna Flunger.
10. Mary, Mother of Jesus. $\frac{3}{4}$ figure.
11. Mary, Mother of Jesus. full figure.
12. Martha. Maria Schwaib.
13. Mary Magdalene. Full figure. Bertha Wolf.
14. Mary Magdalene. $\frac{3}{4}$ figure.
15. The Captain.
16. John. Peter Rendl.
17. Peter. Thomas Rendl.
18. Judas. John Zwink.
19. Andrew. Aloys Gerold.
20. Thomas. Anton Mayer.
21. Matthew. Joseph Albrecht.
22. Bartholomew. Joseph Rutz.
23. Thaddeus. Joseph Kurz.
24. Philip. Tobias Zwink.
25. Simon. Martin Hochenleitner.
26. James, the Greater. Mathias Dedler.
27. James the Less. Benedikt Klucker.
28. Dariabas. Johann Lang.
29. Ezekiel. Ruppert Breitsamter.
30. Rabinth. Edward Albe.
31. Nathan. Franz Paul Lang.
32. Merari. Anton Gastl.
33. Rabbi. Andreas Lang.
34. Joshua. Andreas Wolf.
35. Veronica.
36. Simon, of Cyrene.
37. Joseph, of Arimathea. Andreas Braun.
38. Annas. Martin Oppenreider.
39. Barabbas.
40. Nathanael. George Breitsamter.
41. Pilate. Sebastian Bauer.
42. Caiaphas. Sebastian Lang.
43. Herod. Rochus Lang.
44. Moses. Tobias Zwink.
45. Nicodemus. Wilhelm Rutz.
46. Oziel. Dom Klammer.
47. Prologue. Joseph Mayer.
48. Tableau—Farewell of Tobias.
49. The Farewell at Bethany.
50. Christ and Mary.
51. Simon, of Bethany. Franz Steinbäcker.
52. Christ Riding on the Ass. John Leading.
53. Christ on the Mount of Olives.
54. Christ and Mary Magdalene.
55. Christ Blessing His Disciples.
56. Preparing for the Last Supper.
57. The Last Supper. Christ Sitting.
58. The Last Supper. Christ Standing and Blessing the Cup.
59. Tableau—Joseph Sold by His Brethren.
60. Judas Before the Great Council, Receiving the Blood Money.
61. Entry into Jerusalem, and the Dispersion of the Dealers.
62. Christ in the Garden of Gethsemane.
63. Christ and Judas.
64. Judas Betraying Christ with a Kiss.
65. Christ Before Caiaphas.
66. Tableau—Samson Mocked by the King of the Philistines.
67. Christ Before Herod.
68. Christ Before Pilate.
69. Christ Condemned.
70. The Scourging.
71. Christ at the Scourging Pillar. Anton Lang.
72. Christ Mocked by the Soldiers.
73. Christ Crowned with Thorns.
74. Ecce Homo. Anton Lang.
75. Bearing the Cross.
76. Tableau—Moses Elevating the Brazen Serpent.
77. Mary Magdalene Anointing Christ.
78. Peter Denies Christ.
79. The Crucifixion.
80. "It Is Finished."
81. Tableau—Cain's Remorse.
82. Judas and the Dealers.
83. The Descent from the Cross.
84. Christ in the Lap of Mary.
85. Pieta.
86. The entombment.
87. The Resurrection.
88. Tableau—Adam Earning His Bread.
89. Apotheosis. Ascension.
90. Tableau—"Suffer Little Children."

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- 5 The Adoration of Magi.
- 6 The Presentation in the Temple.
- 7 The Flight into Egypt.
- 8 The Shadow of the Cross.
- 9 The Return to Nazareth.
- 10 Jesus disputing with the Doctors.
- 11 St. John preaching in the Wilderness.
- 12 The Baptism of Christ.
- 13 Christ tempted by the Devil.
- 14 Christ and the Samaritan woman.
- 15 Christ preaching on the Sea of Galilee.
- 16 The Sermon on the Mount.
- 17 Christ healing the Sick.
- 18 Christ raising the daughter of Jairus.
- 19 Christ Walking on the Waters.
- 20 The Miracle of the Loaves and Fishes.
- 21 The Transfiguration.
- 22 Parable of Prodigal Son—Carousal.
- 23 Parable of Prodigal Son—Swineherd.
- 24 Parable of Prodigal Son—Return.
- 25 Christ blessing the little children.
- 26 Mary Magdalene washing feet of Jesus.
- 27 Christ and the rich young man.
- 28 The Parable of the Lilies.
- 29 Christ the outcast of the people.
- 30 Christ's entry into Jerusalem.
- 31 The Poor Widow's two mites.
- 32 Christ, the Good Shepherd.
- 33 Christ Weeping over Jerusalem.
- 34 The Last Supper.
- 35 The Agony in the Garden.
- 36 Christ Rejected.
- 37 Christ bearing the Cross.
- 38 Christ arriving at Mt. Calvary.
- 39 The Crucifixion.
- 40 Golgotha, "It is finished."
- 41 The Descent from the Cross.
- 42 The Body of Christ laid in Tomb.
- 43 First Easter Dawn.
- 44 The Resurrection of Christ.
- 45 The Marys at the Tomb.
- 46 Easter Morning.
- 47 The Journey to Emmaus.
- 48 The Ascension of Christ

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- 6 Salome's Dance Before Herod, 108 feet.
- 7 Death of John the Baptist, 74 feet.
- 8 The Brook of Cedron, 89 feet.
- 9 The Messiah's Entry into Jerusalem, 30 feet.
- 10 Suffer Little Children to Come Unto Me, 51 feet.
- 11 Raising of Lazarus, 74 feet.
- 12 The Last Supper, 120 feet.
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- 14 Third Scene—The Messiah's Arrest, 93 feet.
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- 16 Christ Before Pilate, 91 feet.
- 17 Condemnation, 91 feet.
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- 19 The Crucifixion, 153 feet.
- 20 Taken Down from the Cross, 129 feet.
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- 22 The Ascension, 60 feet.
- 23 Train Loaded with Tourists Arriving at Oberammergau, 100 feet.
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By REV. CHARLES M. SHELDON.

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- 4 Uncle Tom Sold, and Leaving his Family.
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- 6 Uncle Tom Saves Eva from Drowning.
- 7 George Harris Resisting the Slave Hunters.
- 8 Eva and Topsy.
- 9 Eva Reading to Uncle Tom.
- 10 Eva's Dying Farewell.
- 11 Legree's Cruelty to Uncle Tom.
- 12 Death of Uncle Tom.

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SIX SLIDES WITH LECTURE.

- 1 The first seed of the passion planted in the young mind.
- 2 The development of the passion with higher stakes.
- 3 Finding himself always the loser, he resorts to false play.
- 4 He is detected and roughly handled by his friends.
- 5 Having finally lost his all, he leaves the gaming-house in despair and madness.
- 6 He ends his life in a mad house, still occupied with his ruling passion.

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- 3 Slade throws a glass at Joe Morgan and hits Mary.
- 4 Joe Morgan suffering the horrors of Delirium Tremens.
- 5 Death of Joe Morgan's Little Mary.
- 6 Frank Slade and Tom Wilkins riding off on a Spree.
- 7 Willie Hammond is induced by Harvey Green to Gamble.
- 8 Harvey Green stabs Willie Hammond to Death.
- 9 Quarrel between Slade and his Son Frank.
- 10 Frank Slade kills his Father with a bottle.
- 11 Meeting of the Citizens in the Bar-Room.
- 12 The Departure from the "Sickle and Sheaf."

THE DRUNKARD'S PROGRESS.

TWELVE SLIDES WITH LECTURE.

- 1 Domestic Happiness—The Greatest of Earthly Blessings.
- 2 The Temptation—"Lead me not into Temptation."
- 3 Introduction of Sorrow—A Loving Heart made sad.
- 4 The Rum Hole—A Substitute for Home.
- 5 Rum instead of Reason.
- 6 Degraded Humanity.
- 7 The Cold Shoulder by Old Friends.
- 8 Rumseller's Gratitude—Rejection instead of Injection.
- 9 Poverty and Want.
- 10 Robbery and Murder—The Result of Drunkenness.
- 11 Mania-a-potu—The Horror of Horrors.
- 12 The Death that Precedes Eternal Death.

TEMPERANCE VIEWS.—Continued.

THE DRUNKARD'S DAUGHTER.

SIX SLIDES WITH LECTURE.

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| 1 Her mother dying, she is left alone in the world. | 4 Unable to pay the rent, she is turned into the street. |
| 2 She endeavors to support herself by sewing shirts. | 5 In a moment of despair, she plunges into eternity. |
| 3 Payment of her work is refused for alleged imperfections. | 6 "Take her up tenderly, lift her with care." |

THE BOTTLE.

EIGHT SLIDES WITH LECTURE.

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| 1 The bottle is brought out for the first time. | 6 Fearful quarrels are the consequences of frequent use of bottle. |
| 2 He is discharged from employment for drunkenness. | 7 The husband, in a fit of drunkenness, kills his wife. |
| 3 An execution sweeps off the greater part of their furniture. | 8 The bottle has destroyed infant and mother, brought son and daughter to vice, and left the father a maniac. |
| 4 They are driven by poverty into the streets to beg. | |
| 5 Cold, misery and want destroy their youngest child. | |

THE STOMACH OF THE DRUNKARD.

EIGHT SLIDES WITH LECTURE.

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| 1 Appearance of Stomach of a Temperance man. | 5 Appearance of Stomach of a Hard Drinker. |
| 2 Appearance of Stomach of a Moderate Drinker. | 6 Appearance of Stomach of a Habitual Drunkard. |
| 3 Appearance of Stomach of the Drunkard. | 7 Appearance of Stomach of a Drunkard on Verge of Grave. |
| 4 Appearance of Stomach after a Debauch. | 8 Appearance of Stomach during Delirium Tremens. |

THE DRUNKARD'S REFORM.

SIX SLIDES WITH LECTURE.

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|--|---|
| 1 He squanders his hard earned money in drink. | 4 He informs his wife of his resolve. |
| 2 His child's clothes are ridiculed; his pride is touched. | 5 His sobriety raises him to the position of foreman. |
| 3 He forms a resolution and leaves the tavern. | 6 The Happy Home of the Reformed man. |

This set supplies what has long been wanted—namely, a Series of Illustrations in which the possibility of reform, even with those who have sunk to the lowest depths, is made evident. A descriptive Reading accompanies the Set, which forms a pleasantly written Temperance Tale, calculated to attract the attention of all interested in the progress of Temperance Reform.

TRAVEL LECTURE SETS.

The following are particularly fine sets of views, all of them made from original negatives which were taken at considerable expense. The quality of the slides is the best that can be made, and if ordered colored will be finished in the finest style. Each of them is accompanied by a lecture, specially written for the slides.

We have listed with each set a number of appropriate Edison moving picture films, which will greatly enhance the interest of the slides themselves.

Mr. Burton Holmes, one of the best-known lecturers of the day, and other exhibitors who rank very highly in the profession, have adopted the method of showing lantern slides on certain subjects and then following these up with moving picture films that have a bearing on the same topic. This method has been very successful and we recommend it highly to our customers.

THE LIGHTS AND SHADOWS OF A GREAT CITY: NEW YORK.

A lecture set of 61 slides, finest quality, with lecture by Rev. W. T. Elsing, City Missionary. Price, uncolored, \$24.00. Any of these slides will be colored in the finest style at an addition of 60 cents each to the price.

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| 1 The Baby's Playground. | 31 Labor Agitators. |
| 2 A Charitable Institution, Little Waifs at Supper. | 32 Murder. |
| 3 A Charitable Institution, Children at Prayer. | 33 Sing Sing Prison. |
| 4 A Charitable Institution, Children in Bed. | 34 The Convict's Burial. |
| 5 A Trio of Little Street Arabs. | 35 Anatomical Diagram; The Stomach of a Drunkard. |
| 6 A Group of Street Arabs. | 36 Anatomical Diagram; The Stomach of a Temperate Man. |
| 7 A Tenement House District. | 37 The Drunkard's Widow. |
| 8 An Alley of Tenements. | 38 The Drunkard's Child at Prayer. |
| 9 The First Development of Character. | 39 The Little Beggar Girl. |
| 10 Wharf Rats. | 40 The East River by Moonlight. |
| 11 A Typical Tough. | 41 The Harbor Police Boat. |
| 12 Pool Playing. | 42 Interior of the Morgue. |
| 13 Card Playing. | 43 The Potter's Field. |
| 14 Ten Cent Lodging House. | 44 The Young Bootblack. |
| 15 The Growler Gang. | 45 The Bootblack Brigade. |
| 16 Arrest for Thieving. | 46 The Oyster Stand. |
| 17 The Tombs, Exterior. | 47 Street Preaching. |
| 18 The Court Room. | 48 Jerry McAuley's Mission. |
| 19 Prisoner Behind the Bars. | 49 The Newsboys' Home. |
| 20 Sunday Service, The Tombs. | 50 The Public School House. |
| 21 Betting at the Race Track. | 51 Holiday in the Country. |
| 22 The Finish of the Race. | 52 Central Park. |
| 23 A Fashionable Barroom. | 53 Trade School, The Carpentry Class. |
| 24 The Pawn Shop. | 54 The Free Reading Room. |
| 25 A Corner Saloon. | 55 An Improved Tenement. |
| 26 The Drunkard's Pillow. | 56 The Factory. |
| 27 Arrest for Drunkenness. | 57 A Block of Residences. |
| 28 The Prison Van. | 58 A Happy Home. |
| 29 Blackwell's Island. | 59 The Picture Gallery. |
| 30 Blackwell's Island, Prisoners Marching to Dinner. | 60 The Church. |
| | 61 The Sheaf of Wheat. |

Edison Moving Picture Films which can be used with the lecture "Lights and Shadows of a Great City."

- Police Patrol Wagon, length 45 feet, \$5.40.
East Side Drive, Central Park, New York, 50 feet, \$6.00.
Dick Croker Leaving Tammany Hall, 50 feet, \$6.00.
Panoramic View of the Ghetto, New York City, 100 feet, \$12.00.
Panoramic View of Brooklyn Bridge, River Front and Tall Buildings from the East River, 125 feet, \$15.00.
The Burglar on the Roof (comic), 50 feet, \$7.50.
Up-to-Date Cake Walk (comic), 75 feet, \$11.25.
Dancing on the Bowery, 50 feet, \$7.50.
Bowery Five Cent Shave (comic), 100 feet, \$15.00.

A Trip Across the Continent.

Washington to San Francisco.

Since tourists and the American public generally are beginning to appreciate the beauty and grandeur of our matchless scenery at home, the demand for lantern slides pertaining to the Rocky Mountains and the Pacific Coast has increased so rapidly that we have collected the following set of views. These slides are made from original negatives, and the complete set is accompanied by lecture reading:

Price per set of 60 views, uncolored, \$21.00; colored, \$45.00.

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|--------------------------------------|--|
| 1 Capitol. | 31 Echo Cliff. |
| 2 Pennsylvania Limited. | 32 Cliff Dwellers. |
| 3 Washington's Monument. | 33 Castle Gate. |
| 4 Juniata River. | 34 Salt Lake City. |
| 5 White House. | 35 Main Street, Salt Lake. |
| 6 Harrisburg Bridge. | 36 Brigham Young's Monument. |
| 7 Horse Shoe Curve. | 37 Eagle Gate. |
| 8 Pack Saddle. | 38 Amelia's Palace. |
| 9 Track Tanks. | 39 The Mormon Temple. |
| 10 Signal Towers. | 40 The Mormon Tabernacle. |
| 11 Union Depot, Chicago. | 41 Interior of Tabernacle. |
| 12 Suburban Station. | 42 Santair Beach. |
| 13 Burlington Flyer. | 43 Oakland Ferry. |
| 14 Interior Dining Car. | 44 Market Street, San Francisco. |
| 15 Interior Library Car. | 45 Panoramic View, Yosemite Valley. |
| 16 Burlington Depot, Omaha. | 46 Bridal Veil Falls, Yosemite Valley. |
| 17 Sheep Ranch. | 47 Yosemite Falls, Merced River. |
| 18 Farm Scene, Nebraska. | 48 Vernal Falls, Yosemite Valley. |
| 19 Tilling the Soil. | 49 Overhanging Rock, Yosemite Valley. |
| 20 Denver, Col. | 50 Mariposa Grove. |
| 21 Garden of the Gods. | 51 Baldwin's Ranch, Pasadena. |
| 22 Balance Rock, Garden of the Gods. | 52 Hotel Del Monte, Monterey. |
| 23 Pike's Peak. | 53 Rose Garden, Hotel Del Monte. |
| 24 Royal Gorge. | 54 Santa Barbara Mission. |
| 25 Suspension Bridge, Royal Gorge. | 55 Los Angeles—The Plaza. |
| 26 Canon of the Grand. | 56 Mt. Shasta. |
| 27 Currianti Needles. | 57 Chinatown, San Francisco. |
| 28 Marshall Pass. | 58 Golden Gate Park, San Francisco. |
| 29 Ascending Marshall Pass. | 59 Cliff House and Seal Rocks. |
| 30 Tower of Gilman. | 60 Sunset. Golden Gate. |

EDISON MOVING PICTURES TO ACCOMPANY THE LECTURE, "A TRIP ACROSS THE CONTINENT."

Horse-Shoe Curve, Pennsylvania Railroad. Length 135 feet; \$16.20.
Pack Saddle Mountains, Pennsylvania Railroad. Length 140 feet; \$16.80.
Panorama View of the Capitol, Washington. Length 40 feet; \$4.80.
Royal Gorge, Denver & Rio Grande Railroad. Length 50 feet; \$6.00.
Canyon of the Rio Grande, Denver & Rio Grande Railroad. Length 50 feet; \$6.00.
Old Faithful Geyser, Yellowstone Park. Length 100 feet; \$15.00.
Stage Coach Hold-Up in the Days of '49. Length 150 feet; \$22.50.

Prize Fight Moving Picture Films

We are prepared to furnish moving picture films made by the Edison Mfg. Co., exclusively, of the Jeffries-Ruhlin prize fight, which took place at San Francisco, November 15, 1901.

These may be procured either complete or in single rounds.

Owing to the fact that a royalty is paid to the contestants on all of these films sold, the price has been advanced to twenty-five cents per foot. There is also a very interesting set of films taken of the antagonists before the fight. The pictures of both Jeffries and Ruhlin taken while they were in training are of interest, not only on account of the personality of the men, but because these films, which are photographically beautiful, illustrate a form of athletics which has never before been shown in moving pictures. The film of Jeffries working the heavy weights is particularly fine and highly recommended.

JEFFRIES-RUHLIN PRIZE FIGHT—Price 25 cents per foot.

First Round	265 feet	Third Round	200 feet
Second Round	200 feet	Fourth Round	220 feet
Fifth Round.....	215 feet.		

WITH STODDARD IN MEXICO.

A set of 32 stereopticon views, with printed lecture. Price, per set, uncolored, \$11.20; colored, \$25.60.

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|--|--|
| 1 Alamo Plaza, San Antonia, Tex. | 18 Stoddard Under a White Umbrella, Guanahuato. |
| 2 Mexican Desert. | 19 Catacombs, Guanahuato. |
| 3 Zacatecas and the Bufa. | 20 Falls of Juanacatlan. |
| 4 Plaza showing Bufo Zacatecas. | 21 Law Building, Guadalajara. |
| 5 Bathing Trench, Aguas Calientes. | 22 Private Residence, Guadalajara. |
| 6 Street Peddlers, Aguas Calientes. | 23 Prisoners, Guadalajara. |
| 7 Hacienda at San Luis Potosi. | 24 Flower Market, Guadalajara. |
| 8 "Coronet" and Trolleys at Las Canoas. | 25 Plaza, Queretaro. |
| 9 Tunnel No. 7 and Devil's Backbone, Temasopo Canon. | 26 Place of Maximilian's Execution, Queretaro. |
| 10 Falls of Micas, Temasopo Canon. | 27 Maximilian's Coffin, Government Building, Queretaro. |
| 11 Railway through Coffee Forest near Choy Cave. | 28 Marble Fountain, Old Spanish Convent, Queretaro. |
| 12 Village of Zacata. | 29 Tajos Nochistongo. |
| 13 Grand Hotel Redon, Silao. | 30 Jockey Club House and Calla de San Francisco, City of Mexico. |
| 14 Water Carriers, Guanahuato. | 31 Interior of Jockey Club House, City of Mexico. |
| 15 Street View, Guanahuato. | 32 On the Zocala, City of Mexico. |

Interesting Mexican Moving Picture Films, companion subjects for above lecture, Edison make. Price, \$6.00 per 50 feet.

Las Vegas Canal, Mexico City.....	Length 50 feet
Mexican Rurales' Charge	Length 50 feet
Mexico City Street Scene	Length 50 feet

A GREAT BULL FIGHT.

New Moving-Picture Film.

The Edison Cameras have made repeated attempts to obtain a first-class moving picture of a genuine bull fight, but owing to one or another unfavorable condition the films were not satisfactory.

At last, however, the results desired have been achieved. During the winter of 1902 ideal conditions offered themselves in Mexico, and a perfect moving picture of a bull fight was obtained.

DESCRIPTION OF A GREAT BULL FIGHT.

This was one of the greatest bull fights ever fought, and also by the greatest bull fighter in the world, the Only Antonio Fuentes, and his companion, Louis Mazzantini. This fight was for the benefit of Fuentes, and was fought in the City of Mexico before President Diaz and his entire cabinet. The features of this fight are many, as only pure-blooded Spanish bulls were used on this occasion. The first thing that startles the vision is the entrance of the Grand Herald with his elegant costume, black velvet trappings, and beautiful plumes his elegant charger prancing up to the Judge's stand. He again returns, followed by the entire cuadrilla of bull fighters. Matadors (killers), Banderilleros, Picadors (stickers) and immediately followed by teams of six mules, which are used to drag dead horses and bulls from the ring. Only a moment elapses, when the signal is given from the Judge's Stand by a Bugler, when, from directly opposite, a wild bull rushes frantically into the ring, his tail aloft, his wild eyes darting fire. How proud he is in his mighty strength, soon to be gone forever. You now see the capadores throwing their capes, flaring them in the bull's face, while he, mad with rage, charges furiously at them. The Picadors now begin their part of the fight by riding directly in front of the maddened bull and sitting proudly erect, holding their pikes ready when the bull charges the horse. In this fight, horses and riders are upset and thrown in every direction. The Picadors, however, were very successful, and succeeded in picking the bull time and time again, although five horses were killed before he was finally dispatched. The bull, now more furious than ever, and maddened by the shouts of the populace, streaming with blood, which pours from a dozen different wounds, now charges wildly at the Banderilleros, who have been waiting to thrust the enraged bull. They finally succeed in placing four pairs of Banderilllos after much parleying and fine play. The bugler now gives the signal to kill. You now see the Matador (killer) walk proudly up to the bull flaring the red cloth into his face. The bull, now insane with rage, rushes madly at the cloth, the bull fighter nimbly stepping to one side. The bull balked, after repeated efforts becomes dazed, and holds his head down; the bull fighter, seeing his opportunity, thrusts his sword up to the hilt into the bull's neck. The bull, mortally wounded, now staggers around blindly and finally topples over dead. The funkies now present themselves with a team of six mules and drag the dead bull from the ring. This picture is most exciting and gives one a perfect idea of the sport which is indulged in by the Spanish and Mexican people.

The above picture is absolutely perfect photographically and otherwise.

Length of Complete Bull Fight, 1,000 feet. Price \$150.00

We also sell the separate subjects of the bull fight as follows:

The Grand Entrance of the bull fighters.....	.75 feet.	\$11.25
Picadores.....	.215 feet.	\$2.00
Banderilleros.....	.270 feet.	40.00
Killing the Bull.....	.410 feet.	61.50
Dragging the dead bull from the ring.....	.30 feet.	4.50
Also sold in 100 foot strips.....		15.00

When ordering 100 foot strips, customers will please state what subject they wish.

100

Alaska and the Klondike.

Made from special photographs owned by the Alaska-Yukon Transportation Co. The negatives from which these slides are made are our exclusive property, and every slide is warranted to be what its title indicates.

Price 25 cents each, uncolored; 50 cents each, colored.

- 1 Map of Alaska.
- 2 First Steamer from San Francisco after Discovery of Gold in Klondike.
- 3 St. Michael's Bay.
- 4 Winter Harbor, St. Michael's Bay.
- 5 Mouth of Tanana River, 800 miles up the Yukon from St. Michael's.
- 6 Mouth of Bear Creek, Tanana River.
- 7 Rock Formation in Tanana River.
- 8 Scenes on the Yukon, 1,100 miles from St. Michael's.
- 9 The Same, another view.
- 10 Deep Creek, tributary to the Kuskuk-win.
- 11 Scenes on the Upper Tanana River.
- 12 Foot Hills of Mt. Wrangle Range.
- 13 Spirit Lake; Source of Copper River.
- 14 Circle City, on the Yukon.
- 15 Fort Cudahy.
- 16 Euclid Avenue, Dawson.
- 17 Sawmill at Dawson.
- 18 Sitka; Government Building and Parade Ground.
- 19 Sitka, showing rustic bridge.
- 20 Juneau.
- 21 Juneau; U. S. Commissioner's office.
- 22 Muir Glacier.
- 23 Face Wall, Muir Glacier.
- 24 Crevasse in Muir Glacier.
- 25 Western End, Muir Glacier.
- 26 Upper Yukon River.
- 27 Mouth of Minook Creek.
- 28 Hunker Creek, tributary to the Klondike.
- 29 Minook Creek.
- 30 Snoqualmie Falls.
- 31 Bonanza Creek.
- 32 Fort Tongas.
- 33 Indian Village at Kassan Bay.
- 34 Baranoff Castle.
- 35 Indian Chief and Child.
- 36 Future Statesmen of Hyda Tribe.
- 37 Prof. Libby and Wife in Camp on Bonanza Creek.
- 38 Resting in the Wilderness.
- 39 A Party of Klondikers.
- 40 Indian Girls Making Baskets.
- 41 Preparing for Placer Mining on High Land.
- 42 Indian Church.
- 43 Mouth of Shaft of Treadwell Mine.
- 44 Stamp Mill at Treadwell Mine; the largest in the world.
- 45 Hydraulic Mining at Cook Inlet.
- 46 Whiskey Smuggler at 40 mile.
- 47 Mountain side and stream.
- 48 Disheartened Prospector on Chilkoot Trail.
- 49 Taking Ice for Ship's Stores.
- 50 Russian Fort; Block-House.
- 51 Supply Station at Kodiak; established by Russians.

Edison Moving Picture Films of Alaska.

Price, \$7.50 per 50 feet.

Horses loading for Klondike, length 50 ft.
Burro Pack Train on Main St., Dawson
City, length 50 feet.
Burro Pack Train on Chilcot Pass,
length 75 feet.
White Horse Rapids, length 50 feet.

Panoramic View from White Pass Rail-
road, length 75 feet.
Rocking Gold in the Klondike, length 65
feet.
Washing Gold in the Klondike, length 65
feet.

PARIS AND VERSAILLES

A set of 61 lantern slides of finest quality, with lecture. Price per set, uncolored, \$24.00.

Any of these views can be colored at an addition of 60c each to the price.

1. Cathedral of Notre Dame.
2. Cathedral of Notre Dame, Interior.
3. Cathedral of Notre Dame, Quaint Sculptures.
4. Second Hand Book Stalls near Notre Dame.
5. Hotel de Ville.
6. Place de la Bastille.
7. Tomb of Lafayette.
8. Cemetery of Pere La Chaise.
9. A Group of Parisian Loungers.
10. Horse Butcher Meat Shop.
11. Triumphal Arch of St. Denis.
12. Bourse.
13. A Parisian Boulevard.
14. Place de l'Opera.
15. Grand Opera House.
16. Grand Opera House, Marble Stairway.
17. Column Vendome.
18. Church of the Madeline
19. Flower Market.
20. Vegetable Market.
21. Church of St. Roch.
22. Place de la Concorde.
23. Tuilleries Palace, Southern Wing.
24. Louvre.
25. Louvre Statue Gallery.
26. Louvre Venus de Milo.
27. Louvre Grand Picture Gallery.
28. Rue Rivoli.
29. Theatre Francais.
30. Palais Royal.
31. Champs Elysees.
32. Champs Elysees, a Cafe.
33. Elysee Palace.
34. Triumphal Arch de l'Etoile.
35. Bois de Boulogne.
36. Passenger Boat on the Seine.
37. Trocadero Palace.
38. Eiffel Tower.
39. A Trio of Veteran Soldiers.
40. Hotel des Invalides.
41. Tomb of Napoleon.
42. Luxembourg Palace.
43. Luxembourg Palace, Gallery of Paintings.
44. Luxembourg Palace, Gallery of Sculpture.
45. Pantheon.
46. Sainte Chapelle.
47. Sainte Vhapelle, Interior.
48. Concierge.
49. Concierge, Cell of Marie Antoinette.
50. Bird's Eye View of Paris.
51. A Suburban Restaurant.
52. Versailles, Palace, Exterior.
53. Versailles, Historical Tennis Court.
54. Versailles, Palace, Entrance Hall.
55. Versailles, Palace, Salle Oeil de Boeuf.
56. Versailles, Palace, Bed Chamber of Louis XIV.
57. Versailles, Palace, Hall of Battles.
58. Versailles, The Gardens.
59. Versailles, State Carriages.
60. Versailles, Swiss Chalet of Marie Antoinette.
61. Versailles, Fountains (Grand Eaux).

EDISON MOVING PICTURE FILMS.

The following films can be appropriately shown with the lecture set on Paris and Versailles:

- Panoramic View from Eiffel Tower, ascending, 125 feet. Price \$18.75.
- Paris Exposition from the Trocadero Palace, length 70 feet. Price \$8.40.
- Driving Scene on the Champs Elysees, length 75 feet. Price \$9.00.
- Scene on the Bois De Boulogne, 50 feet. Price \$7.50.
- Annual French Military Carousal, 100 feet. Price \$12.00.
- Street Scene at Place de La Concorde, Paris, France, 75 feet. Price \$9.00.

A NEW CLASSIFICATION OF EDISON FILMS

NEW PRICES.

We are pleased to announce that the Edison Mfg. Co. has reclassified all of its films as follows:

Class A, value \$7.50 per 50 feet.

Class B, value \$6.00 per 50 feet.

Longer and shorter lengths at proportionate prices.

The difference in price does not indicate difference in quality. Films included in class B are photographically and otherwise of equally high quality with those of class A.

The basis of this classification is as follows:

There is a great difference in the cost of making various negatives for moving pictures. Some subjects require the sending out of expeditions sometimes covering thousands of miles and consuming months of time, for the making of a single negative. Take, for instance, the new bull fight film, length

1,000 feet. This required the sending of an expedition into Mexico, the expenditure of a large sum of money in preparing for the bull fight and for the right to take moving picture negatives. Films involving such heavy expenditures will be found in class A listed at \$7.50 per 50 feet. In some instances the expense of making a negative may be so great that it is impossible to dispose of a sufficient number of films to compensate for the outlay.

In accordance with its policy, however, to make its film list as complete as possible, the Edison Mfg. Co. does not take into account such possible losses. Films listed in class B at \$6.00 per 50 feet, while equally good photographically, are in some cases older subjects, that have been on the market for some time; and in others the negatives did not call for any unusual expenditure.

As General Western Selling Agents for the Edison Mfg. Co.'s Projecting Kinetoscopes and Films, we can guarantee to our customers the latest models and prompt service in the delivery of machines and of films. Our stock is constantly moving and we are in daily receipt of shipments from the factory, which is a sufficient guarantee that goods shipped by us are thoroughly up to date.

Japan and the Japanese

A set of stereopticon views 60 in number. Price, uncolored, \$24.00.

Any of the views included in this set can be colored in the finest style at 60c each additional.

1. Yokohama and shipping.
2. Map of Japan.
3. Tokio.
4. Fruit Vender.
5. Curiosity Store.
6. Mikado Mutsuhito.
7. Wife of Mikado.
8. Bamboo Grove, Emperor's Garden.
9. Young Man in Court Dress of the Old Regime.
10. Idols, Asakusa, Tokio.
11. Road to Nikko.
12. The Sacred Lacquered Bridge, Nikko.
13. Temples and Lanterns. Entrance to Tomb of Ieyasu.
14. Yoma Gateway.
15. Urn of Ieyasu.
16. Buddhist Priest Praying.
17. Street in Nikko.
18. The Tokaido.
19. Fujimama.
20. Postmen Running.
21. Pilgrim.
22. Samurai.
23. Ox Cart.
24. Diabutz. (Bronze Colossal Image of Buddha).
25. Kago and Coolies.
26. Hakon and the Mountains.
27. Norimon.
28. Jinrikisha.
29. Lake Biwa and Tea Gardens.
30. Carpenter at Work.
31. Interior of a House.
32. Lady Having Her Hair Dressed.
33. Girls Sleeping.
34. Ancient Castle of Daimio.
35. Warrior in Ancient Armor.
36. Osaka Castle and Moat.
37. Great Pagoda at Osaka.
38. Farmers in Straw Coats and Hats.
39. Farmer Hulling Rice.
40. Farmer Eating His Dinner.
41. Girls Weaving at Loom.
42. Famous Temple at Nara.
43. Great Bronze Buddha in Temple.
44. Stone Bridge and Lotus Flowers.
45. Street in Kloto.
46. Temple Bell.
47. Interior of Temple.
48. Magnificent Altar.
49. Painter Decorating China.
50. Quack Doctor and Patient.
51. Singing Girl, Playing Samisen.
52. Picturesque Village of Hasse.
53. Tea House and Mountain Path, Kobe.
54. Coolies Drawing Tea Cart.
55. Japanese Junk.
56. Island of Pappenberg.
57. Panorama of Nagasaki.
58. Fire Engine in Service.
59. Street Acrobats Performing.
60. Japanese Beauty in Winter Attire.

EDISON MOVING PICTURE FILMS TO ACCOMPANY THE ABOVE.

Street Scene in Yokohama, No. 1, 50 feet. Price \$6.00.

Street Scene in Yokohama, No. 2, 50 feet. Price \$6.00.

Arrival of Tokyo Train, 50 feet. Price \$6.00.

Railroad Station at Yokohama, 50 feet. Price \$6.00.

Theatre Road, Yokohama, 50 feet. Price \$6.00.

Going to the Yokohama Races, 50 feet. Price \$6.00.

Returning from the Yokohama Races, 50 feet. Price \$6.00.

Steamship Gaelic Coalings at Nagasaki, 50 feet. Price \$6.00.

The Destruction of St. Pierre.

Owing to the appalling calamity that occurred at St. Pierre, on the Island of Martinique, due to the wholly unexpected eruption of the volcano of Mount Pelee, there has been a great demand for lantern slides showing views of the districts affected by the various eruptions, and we accordingly list herewith slides that we can furnish in connection with this subject.

Slides of other volcanoes, etc., will also have much greater attraction for the public than ever before on account of the intense interest aroused by the recent eruptions.

We wish to emphasize the fact that the following slides are original photographs, collodion plates, the negatives for which were made before the calamity and are of the very highest quality. They are not to be confounded with cheap slides made from drawings, copied photographs and other duplicated forms.

Price 40c each slide, uncolored; colored in finest style, \$1.00 each.

MARTINIQUE. Saint Pierre.

(The City of St. Pierre was wholly wiped out by the eruption of Mount Pelee May 8th, 1902. The number of deaths is variously estimated at from 30,000 to 50,000. Practically none of the inhabitants escaped.)

This calamity ranks with the eruption of Mount Vesuvius, which destroyed Pompeii and Herculaneum.)

1. Harbor of St. Pierre.
2. City of St. Pierre viewed from the harbor.
3. Street in St. Pierre.
4. The River.
5. A Road in a Suburb.

FORTE-DE-FRANCE.

(Forte-de-France is a city on the Island of Martinique near St. Pierre, which practically escaped the ravages of the volcanic eruptions and was the nearest point of refuge.)

6. Statue of Empress Josephine, who was born on the Island of Martinique.
7. House in which Empress Josephine was born.
8. An Old Stairway.
9. Native Divers.
10. An Octoroon; afterward one of the victims of St. Pierre.

ST. VINCENT.

(St. Vincent is British colony near the Island of Martinique and also suffered severely from volcanic eruptions. It is estimated that 1,600 people on the Island were killed. Its principal city is Kingstown.)

11. Harbor of Kingstown.

It is advised that slides of volcanoes be bought colored. When these are colored in the best style the effects are very beautiful.

If desired we can furnish any of these slides in duplicates or triplicates, colored in such a way as to produce different light effects. That is to say, a beautiful effect is produced by coloring one slide of Mt. Vesuvius or any other mountain scene to show daylight effects; another copy of the same slide to show twilight, and a third of the same slide to show night.

When these are used with a dissolving stereopticon the result in changing from one lantern slide to the other is simply a change in the coloring, the slide itself apparently remaining on the curtain. In this case, daylight fades into twilight, and twilight into night.

LIST OF LANTERN SLIDES OF MARTINIQUE, ST. VINCENT, ETC.

Made from Direct Negatives Taken Since the Eruption.

BEST QUALITY.

Price, uncolored, 40 cents each; colored, \$1.00 each.

ST. PIERRE—

- Mount Pelee in Eruption.
- Mount Pelee in Eruption May 21.
- Mount Pelee mud streams on southern slope.
- Mount Pelee mud streams on southwest and west slopes.
- General view of ruined city from the sea.
- Rue Lucio in ruins.
- Hotel de Ville and hospital in ruins.
- Hotel de Ville and hospital in ruins May 21.
- Palace of Justice in ruins.
- Cathedral in ruins.
- Custom house in ruins.
- Fort section of city in ruins.
- The bank in ruins.

FORT DE FRANCE—

- Landing stores from the Dixie.
- Lighter leaving the Dixie.
- Watching landing of stores from the Dixie.
- Soldiers guarding stores.

ST. VINCENT—

- Mount Soufriere at Sunrise May 23d.
- Mount Soufriere in eruption May 24; canefields in foreground covered in 20 inches of ashes.
- Georgetown, camp of refugees.
- Georgetown, waiting for bodies, where 1,300 have already been buried.
- Georgetown, street view, seven miles away, showing windows broken.
- Georgetown, distributing relief.
- Georgetown, plantation near, covered with ashes.
- Georgetown, canefields near, covered with ashes.

ECONOMIC SLIDES.

Price, uncolored, 25 cents each; colored, 50 cents.

(Made from drawings, not photographs).

1. Destruction of St. Pierre, showing eruption.
2. Destruction of St. Pierre, showing people fleeing.

EDISON MOVING PICTURE FILMS.

Mount Pelee before the eruption, 75 feet. Price.....	\$11.25
Eruption of St. Pierre, 75 feet. Price.....	11.25
Mount Pelee in Eruption and destruction of St. Pierre, 100 feet. Price....	15.00

SETS OF DISSOLVING VIEWS

The following views are among the most beautiful that can be made, calling for the highest capacity in both photographer and colorist. They are best adapted for use with a dissolving stereopticon, which projects sets of slides in such a manner that the one fades away as the other appears, with no visible moving out of the field of view, to the right or left.

In the following list we include some strikingly handsome effects that are new and have never been previously attempted. These consist of two or more slides of the same subject worked up with various color effects by our most expert artist. Photographically they are of the highest excellence, being originals, made from original negatives. Standard size, 3½ by 4 inches.

Set of two Dissolving Views, colored in finest style.....	\$2.00
Set of three Dissolving Views, colored in finest style.....	3.00
Sold singly, each slide.....	1.00

- Set No. 1. A STREET SCENE IN ST. PIERRE BEFORE THE VOLCANIC ERUPTION. This set consists of 3 slides, duplicates of the same subject, colored to produce effects as follows:
- A. Looking down the street, daylight, showing houses on both sides, natives in the street; in the background, at the end of the street, can be seen the volcano Mt. Pelee, inactive.
 - B. The same scene changed to twilight; in the background the volcano is beginning to pour out its stream of fire, smoke and ashes; the sky is darkening, and the air is charged with gases.
 - C. The scene changes. Mt. Pelee close at hand, pouring out its deadly volley; an awful scene, whose grandeur is unsurpassed.
- The negatives from which the slides were made were taken before the disaster, and are genuine. The fire and volcanic effects are produced by the colorist.
- Set No. 2. THE RIVER AT ST. PIERRE BEFORE THE ERUPTION. Shows the river, city wall and houses; daylight.
- A. The same at night.
- Set No. 3. THE HARBOR OF ST. PIERRE BEFORE THE ERUPTION. Shows the harbor, shipping and the city in background, by daylight.
- A. The same at night, showing the moon and lights twinkling on shipboard and in the city.
- Set No. 4. AN OCEAN STEAMER. Shows the Ocean Steamer by Day.
- B. The Ocean Steamer at Twilight.
 - C. The Ocean Steamer at Night.
- Set No. 5. NIAGARA FALLS. Shows the Falls by Day.
- B. The Falls by Twilight.
 - C. The Falls at Night.
- Set No. 6. THE CAPITOL AT WASHINGTON. Shows the Capitol by Day.
- B. The Capitol at Night.
- Set No. 7. THE RHINE: CATHEDRAL OF COLOGNE. Shows the Cathedral by Day.
- B. The Cathedral at Night.
- Set No. 8. PANORAMA ACROSS THE RHINE FROM THE SPIRE OF COLOGNE CATHEDRAL. Shows the Panorama by Day.
- B. Panorama at Night.
- Set No. 9. THE RHINE: STOLZENFELS CASTLE. Shows the Castle by Day.
- B. The Castle at Night.

The Anglo-Boer War

A lecture designed to accompany a set of Stereopticon Views illustrative of the Anglo-Boer War, as well as of the History of South Africa, its People, and the dominant and subordinate forces at work upon its destinies.

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TITLES OF VIEWS THAT ACCOMPANY THE LECTURE

THE ANGLO-BOER WAR.

1. Map of the Scenes of the War.
2. President Krueger.
3. Battle of Majuba Hill.
4. Cemetery on Majuba Hill.
5. Officers' Graves on Majuba Hill.
6. British South Africa Company's Pioneers.
7. DeBeers Diamond Mines, Kimberley.
8. Dr. Jameson's Last Stand.
9. Cecil Rhodes.
10. General Joubert.
11. Boers Going to War, October, '99.
12. Battle of Elandslaagte, Oct. 2, '99.
13. Scene on the Battlefield.
14. Death of Col. Scott Chisholme.
15. Col. Baden-Powell on horseback cheering on his troops to the attack.
16. Boer Prisoners on the way to Pietermaritzburg.
17. A Transport in Rough Weather.
18. British Military Patrol Arresting a Suspected Dutch Farmer.
19. War Balloon being brought up from Station at Ladysmith.
20. Veterans reading war news in Chelsea Hospital.
21. Sortie at Nikolson's Nek.
22. After the battle of Oct. 30, 1899.
23. Capture of a Boer Spy.
24. Serving out Rations during the Siege of Ladysmith.
25. Town Hall at Ladysmith converted into a Hospital.
26. A candidate for Victoria Cross on the Field near Ladysmith Nov. 3.
27. Native Dispatch Carrier killed by Boers.
28. A Group of Kaffir Warriors.
29. An English mounted Trooper announcing the Arrival of the Boers.
30. "Ah! If it were only '81 again!"
31. A Night Attack; the English surprised.
32. Saluting the Wounded, Battle of Modder River.
33. Bringing up the Guns to the Tugela River; General Buller's first attack.
34. Loss of Guns at Tugela River.
35. The Attack on Spion Kop from the South End.
36. The Attack on Spion Kop from the East End.
37. Buller's Retreat over the Tugela River after Spion Kop.
38. Siege of Mafeking; making for a bomb-proof shelter.
39. Hauling Guns up Coles Kop.
40. Lord Methuen's Division Greeting Roberts at the Modder River camp.
41. General Cronje.
42. Uncontrolled Happiness of the London Populace after the relief of Ladysmith.
43. Map showing Cronje's position at the time of his surrender.
44. The Trooper's first and last shot.
45. Boer Prisoners in Khaki at Cape Town.
46. Three English War Ships with Boer Prisoners on board.
47. General Lord Kitchener.
48. Field Marshal Lord Roberts.
49. Bloemfontein.
50. Government Ave., Cape Town.

EDISON MOVING PICTURE FILMS, APPROPRIATE FOR USE WITH THE "ANGLO-BOER WAR" STEREOPTICON VIEWS.

Charge of Boer Cavalry, length 50 feet, \$6.00.
Capture of Boer Battery by the British, length 100 feet, \$12.00.
English Lancers Charging, length 75 feet, \$11.25.

Boers Bringing in Prisoners, length 75 feet, \$9.00.
Red Cross Ambulance on Battle Field, length 100 feet, \$12.00.
Battle of Mafeking, length 75 feet, \$11.25.

FROM CUBA TO THE PHILIPPINES WITH OUR BOYS IN BLUE.

A set of stereopticon views, 60 in number, with lecture. Price per set of 55 uncolored, 5 colored views. \$16.25. Sold singly at 25 cents uncolored, 50 cents colored.

- 1 Map of West Indies.
- 2 Spanish Cavalry with Captured Cubans.
- 3 General Weyler.
- 4 Starving Reconcentrados.
- 5 Charge of Cuban Cavalry under Maceo.
- 6 Death of Maceo.
- 7 Battleship Maine.
- 8 Morro Castle.
- 9 Explosion of the Maine.
- 10 Wreck of the Maine.
- 11 Graves of the Maine Victims, Colon Cemetery, Havana.
- 12 Court of Inquiry.
- 13 President McKinley Sending Ultimatum to Spain.
- 14 Bombardment of Matanzas.
- 15 Admiral Dewey and Fleet.
- 16 Plan of Manila Harbor.
- 17 Battle of Manila Bay.
- 18 Dewey on Bridge of Olympia.
- 19 Gateway to Fort Cavite.
- 20 Bombardment of San Juan, Puerto Rico.
- 21 Death of Ensign Bagley.
- 22 Bombardment of Santiago.
- 23 Sinking of Merrimac.
- 24 Landing of Troops at Siboney.
- 25 Roosevelt Leading Charge, San Juan.
- 26 Battle of El Caney.
- 27 Red Cross Caring for Wounded.
- 28 Destruction of Cervera's Fleet.
- 29 Schley on Deck of Brooklyn during Engagement.
- 30 Battleship Oregon.
- 31 Wreck of Maria Theresa at Sunset.
- 32 Surrender of Santiago to Gen. Shafter.
- 33 Diamond Head, Honolulu.
- 34 Raising Stars and Stripes over Government Building at Honolulu.
- 35 Royal Hotel and Grounds, Honolulu.
- 36 Avenue of Royal Palms, Queen's Hospital Grounds.
- 37 Signing Peace Protocol.
- 38 Reconnoitering Line, Malate.
- 39 Spanish Trenches, Malate.
- 40 Capture of Fort Malate.
- 41 Surrender of Manila.
- 42 River Pasig.
- 43 The Escolta, main street of Manila.
- 44 "Bridge of Spain," stone structure across Pasig.
- 45 The Luneta.
- 46 Native Huts, Manila.
- 47 Natives.
- 48 Native Store.
- 49 Botanical Gardens, Manila.
- 50 Aguinaldo and Staff.
- 51 Filipino Entrenchments at Santalon.
- 52 Third Artillery Before Caloocan.
- 53 Capture of Block House at Caloocan.
- 54 Insurgents Blocking Traffic on Dagupan Railway.
- 55 Burning of Tondo, an Attack on Minnesota Volunteers.
- 56 Waiting for Filipino Peace Commission.
- 57 Malabon Bridge, captured March 26.
- 58 Kansas Regiment Awaiting Attack on Calumpit.
- 59 Lawton's Troops in the Field.
- 60 General Lawton.

Edison Moving Picture Films, companion subjects, for use with slides, "From Cuba to the Philippines."

Battle of San Juan, length 100 feet, \$12.00.
Schley on the Bridge During Battle, and the Man Behind the Gun, length 150 feet, \$22.50.
Army Mules Swimming Ashore at Baiquiri, Cuba, length 50 feet, \$7.50.

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U. S. Battleship Oregon in N. Y. Harbor, length 50 feet, \$6.00.
Trained Cavalry Horses, length 50 feet, \$6.00.
Advance of Kansas Volunteers at Caloocan, length 65 feet, \$9.75.
Rout of the Filipinos, length 75 feet, \$11.25.
Capture of the Trenches at Candabar, length 75 feet, \$11.25.



The Escape of Hobson and his Men from the Merrimac.

A LECTURE

LAND AND NAVAL BATTLES AT SANTIAGO.

Complete in set of 50 slides, with lecture reading. Price, per set, uncolored, \$12.50; colored, \$25.00. Single slides, 25 cents each.

- 1 First sight of Santiago by U. S. Volunteers.
- 2 Receiving newspapers from home on board the New York, before Santiago.
- 3 United States troops landing at Baiquiri, showing docks.
- 4 Harbor at Siboney, showing transports and block-house.
- 5 Cubans passing over the hill to the front at Siboney.
- 6 Death of Capt. Capron.
- 7 Roosevelt leading the charge on San Juan hill.
- 8 The battle of El Caney.
- 9 Capt. Capron's battery in action.
- 10 Stone fort at the top of the hill at El Caney.
- 11 Cuban Insurgents before Santiago.
- 12 In the trenches before Santiago.
- 13 Red Cross ambulance in the field.
- 14 Clara Barton.
- 15 Wounded soldier limping to hospital.
- 16 Bird's eye view of the bombardment of Santiago.
- 17 Admiral Sampson.
- 18 Escape of Hobson and his men from the Merrimac.
- 19 Admiral Cervera's dash from Santiago.
- 20 The Gloucester destroying Spanish torpedo boats.
- 21 Naval battle of July 3rd, 1898.
- 22 Destruction of Cervera's fleet.
- 23 Wreck of the Maria Theresa, at sunset after the battle.
- 24 Almirante Oquendo on fire after the wreck.
- 25 The Viscaya, as she steamed into New York harbor in March, 1898.
- 26 The wrecked Viscaya; explosion of the magazine.
- 27 The Christobol Colon, after grounding and rolling on her side.
- 28 Rear Admiral Schley.
- 29 Capt. Robley D. Evans.
- 30 Lieut. Hobson.
- 31 The Oregon.
- 32 Admiral Cervera.
- 33 Admiral Cervera received by Capt. Evans.
- 34 Capt. Philip's prayer on the Texas after victory.
- 35 "Don't cheer, boys the poor devils are dying."
- 36 Surrender of Santiago by Gen. Toral to Gen. Shafter.
- 37 Gen. Shafter on horseback.
- 38 Gen. Joseph Wheeler.
- 39 The Irishman who did not want to die with a Spaniard.
- 40 Sample of a hard working insurgent.
- 41 Uncle Sam before and after taking.
- 42 Col. Theodore Roosevelt.
- 43 Working rapid fire gun on the Oregon.
- 44 Unloading live cattle from on board ship.
- 45 News from home on board the cruiser Brooklyn.
- 46 Diver Morgan going under the New York to clean bottom.
- 47 Soldier dying in field tent: break the news to mother.
- 48 Troop G of the Rough Riders nearing Baiquiri.
- 49 The village of El Caney.
- 50 The spirit of '76.

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MAGIC LANTERN SLIDES
....OF....

Manila, Cavite, Malate, Caloocan

AND OTHER PLACES AND OBJECTS OF INTEREST IN THE PHILIPPINE ISLANDS.

All of standard size, $3\frac{1}{4} \times 4$ inches. Price, uncolored, 35 cents; colored, 80 cents each.

PLEASE ORDER BY NUMBER AND TITLE.

- 902 Watergate used to fill the Moat around the Walled City of Manila, guns on wall.
- 903 Entrance to the Walled City near the Pasig River on the north, very fine.
- 906 Courtyard in the rear of Governor General's Palace in the Walled City.
- 907 Spanish Church in Walled City. 1,500 Spanish prisoners were confined here after the capture of Manila, Aug. 13, 1898.
- 908 San Sebastian Church. Finest building in Manila. Built entirely of steel.
- 909 Entrance to Billbia, the U.S. Military Prison. Fort San Antonio, from Pasig River.
- 910 Fort San Antonio, on Pasig River. Spanish prisoners in foreground.
- 913 Puente Agela, or Iron Bridge. Maj.-Gen'l Anderson's house on right.
- 914 Approach to Bridge of Spain from the north side in the new Manila; busy street scene.
- 916 Bomberos, or Filipino Fire Company--never known to get there on time. View shows engine and a company of Filipino firemen. The only photograph of the subject known to exist.
- 918 Manila Cathedral, walled city. Used to confine Spanish prisoners.
- 919 The Lunetta, the fashionable driveway along Manila Bay. Also as a place of execution of the insurgents by the Spaniards.
- 920 Santa Lucia Drive along Manila Bay. Crowded in the evening with the elite of the city.
- 921 Statue of Hernando de Magellan, discoverer of the islands.
- 922 Statue to the first governor of the islands.
- 924 Building occupied by the Manila Loan and Savings Company, state pawnshop, interest regulated by law.
- 926 Old Guns at Cavite, made by Armstrong about 1700.
- 927 Postoffice, Cavite. U. S. Military Station No. 2. Lieut. G. G. Jennings, 1st So. Dakota Regiment, postmaster, on left.
- 931 Old Cathedral at Cavite.
- 933 Fort Malate and Cable Station.
- 935 Fort Malate, with U. S. flag flying. Huge, jagged holes show effects of Dewey's bombardment, close view.
- 936 Cathedral at Malate.
- 937 Grand Plaza in Malate, statue of Queen Isabella in center.
- 938 Filipino Boats in canal in rear of U. S. post office, showing natives.
- 939 Puente de Espana, or Bridge of Spain, connecting new and old Manila.
- 940 Puente Colgante, or Suspension Bridge over Pasig River.
- 941 Bamboo Poles which have been floated down the Pasig River, used to make furniture in Billbia prison.
- 942 Pasig River, looking west from Bridge of Spain.
- 943 Cascoes, or native boats, in creek off the Pasig River.
- 944 Large Casco, or native boat, same as used by the insurgents and the Americans on the inland rivers.
- 945 Paco Church, a few days before burned.
- 946 Paco Church, which was set on fire by 1st California Vols. to dislodge insurgent sharpshooters.
- 947 Bone Yard in Paco Cemetery. Burial lots are rented instead of sold, and when the rent is in arrears the remains are dug up and thrown into a pile. The same custom prevailed in Cuba under Spanish rule. Horribly realistic.
- 948 Filipino Church in Tondo district of Manila, before the fire.
- 949 View of Bay and Tondo District, entirely destroyed by fire after a severe fight between insurgents and 1st Minn. Vols.
- 950 Inland portion of Tondo District of Manila before fire.
- 951 Two guns of the 6th Artillery on Artillery Hill, near San Pedro Macati, firing on insurgents in Guadalupe Church, 2,000 yds. away.
- 952 Old Cathedral at San Pedro Macati, captured by 1st California and 1st Washington troops after sharp battle. Shows effects of shelling by 6th Artillery.
- 953 The Old Binondi Church.
- 954 Filipino Milk Boy with earthenware jugs on stick across his shoulders. 6th Artillery barracks in background.
- 955 Group of Spaniards, Chinese, Filipinos and American soldiers, with a pet goat.
- 956 Filipino Belles.
- 957 Typical Corner Grocery and Filipino children.
- 958 Pinas Huts, typical homes of the Filipinos.
- 960 Filipino Family and Home in Sampaloc District of Manila.
- 961 Bamboo House in Course of Construction. Insurgent Lieutenant in center. Photograph made before hostilities commenced.
- 962 Filipino Boy riding water buffalo through tangled shrubbery.
- 965 Cultivating Rice with water buffalos; typical village in background.
- 966 Filipino Plowing Rice Fields with water buffalo near Manila. This animal is the usual beast of burden of the natives.

GEM SLIDES.

(See Description Page 115).

- No. 3C. Retribution. Lecturer's reading accompanies the above set of slides.
- Slides illustrating the Snow Ball can now be furnished in the Gem style, 3 views, 3 slides in the set. Price per set, uncolored, \$1.20; colored, \$2.40.
- No. 1A. Assassination of President McKinley.
- No. 1B. Angel of Death Mourns President McKinley.
- No. 1C. Taking the Prisoner from His Cell.
- No. 2A. The Electrocution Chamber in Auburn Prison.
- No. 2B. Strapping the Assassin in the Chair; preparing for the shock.
- No. 2C. Ready for the Shock.
- No. 3A. Angel of Death Yields to Justice.
- No. 3B. The Spirit of Anarchy Bows Before Justice.



(TITLE SLIDE).

Set of Ten Stereopticon Views, with Lecture. Price per set, colored, \$6.75.

- 1 Assassination of President McKinley.
- 2 The Angel of Death Mourns President McKinley.
- 3 Auburn Prison.
- 4 Taking the Prisoner from his Cell.

- 5 The Electrocution Chamber in Auburn Prison, N. Y.
- 6 Strapping the Assassin in the Chair; Preparing for the Shock.
- 7 Ready for the Shock.
- 8 The Angel of Death Yields to Justice.
- 9 The Spirit of Anarchy Bows Before Justice.
- 10 Retribution.

EDISON MOVING PICTURE FILM.

The Electrocution of Czolgosz, length 125 feet. Price.....\$15.00

The same, to which is added the Panoramic View of Auburn State Prison,

75 feet. Total length 200 feet.....24.00

Announcement slide for film.....No charge

LIFE OF McKinLEY.
(With Reading).

Price per set, uncolored.....\$4.00

Price per set, colored 8.00

- 1 Birthplace of McKinley, Niles, O.
- 2 Young McKinley enlisting as private, 1861.
- 3 Lieut. McKinley leading rescue of guns, 1863.
- 4 McKinley presenting his tariff bill, 1890.
- 5 McKinley speaking in campaign for Harrison, 1892.

- 6 Inauguration of McKinley as president, 1896.
- 7 McKinley and cabinet discussing Spanish war.
- 8 The signing of the protocol, 1898.
- 9 McKinley's last speech, Buffalo, Sept. 5, 1901.
- 10 The shooting of McKinley, Sept. 6, 1901.
- 11 Mrs. McKinley's last interview with her husband, Sept. 13, 1901.
- 12 Body of McKinley lying in state at Washington.

STEREOPTICON VIEWS OF THE ASSASSINATION AND BURIAL OF PRESIDENT M'KINLEY.

The following titles describe a set of 15 slides, with descriptive lecture, taken in connection with President McKinley's Assassination and Burial:

Sold Colored only. Price per set.....\$7.50

- 1 The Triumphal Bridge at the Pan American.
- 2 Music Hall at the Pan American.
- 3. The Assassination. Portrait of the Assassin.
- 5 The Milburn House.
- 6 The Last Good-bye.
- 7 The Funeral Cortège en route from the Milburn House to City Hall, Buffalo.
- 8 The body lying in state, City Hall, Buffalo.
- 9 Removing Casket from City Hall, Buffalo, for funeral train.
- 10 The Funeral in Washington.
- 11 Removing the Body from the Church in Canton, O.
- 12 Arch of School Children.
- 13 Vault where the body was placed.
- 14 McKinley the Orator.
- 15 The Old Home of McKinley.

Moving Picture Films.

PRESIDENT MCKINLEY AT THE PAN-AMERICAN EXPOSITION.

Part of the following moving picture set can be shown with good effect to follow the stereopticon views on the life of President McKinley.

The Edison cameras were at work at the Pan-American exposition during President McKinley's entire visit, and recorded many scenes incidental to the coming and going of the Presidential party. The camera was in position while President McKinley was making his speech at the Exposition on Thursday, September 5th, 1901, and thus secured a picture of our Executive while making his last public address before the cowardly assault upon his life. On Friday, September 6th, 1902, the cameras were in position to photograph the President as he left the Temple of Music, but the deplorable assassination prevented. An excellent panoramic view of the mob surging in front of the Temple of Music attempting to get at the assassin was procured. These pictures have created intense excitement and interest. In addition to being the best and most easily recognized views of the President and Mrs. McKinley, they depict the last acts of our beloved President before he was shot.

LIST OF FILMS OF PRESIDENT MCKINLEY AT BUFFALO AND THE BURIAL CEREMONIES.

The President's Speech at the Pan-American Exposition, length 75 feet, \$11.25.

President McKinley Reviewing the Troops at the Pan-American Exposition, length 85 feet, \$12.75.

The Mob Outside the Temple of Music at the Pan-American, length 75 feet, \$11.25.

Panoramic view of the Temple of Music and Esplanade (where the President was shot), length 65 feet, \$9.75.

President McKinley's Funeral Cortège at Buffalo, N. Y., length 250 feet, \$37.50.

We can also furnish a 125 foot strip of the above subject, \$18.75; also a 50 foot strip showing panoramic view of President Milburn's house, \$7.50.

Panoramic view of the Crowd Rushing for the City Hall, Buffalo, to view the body of President McKinley, length 50 feet, \$7.50.

The Multitude passing into the City Hall, length 30 feet, \$4.50.

President McKinley's Funeral Cortège at Washington, 350 feet, \$52.50.

Also a 75 foot strip of the above, \$11.25.

Complete funeral cortège at Canton, Ohio, 675 feet, \$101.25, or sold in sections as follows: Funeral train arriving at Canton station, 40 feet, \$6.00, body leaving the train at Canton, Ohio, length 60 feet, \$9.00; President Roosevelt at Canton station, length 90 feet, \$13.50; Circular Panorama of President McKinley's house, 80 feet, \$12.00;

President McKinley's body leaving the house, length 100 feet, \$15.00; President McKinley's body leaving the church, 100 feet, \$15.00; funeral cortège entering Westlawn Cemetery at Canton, Ohio, length 200 feet, \$24.00.

The Martyred Presidents—Lincoln, Garfield, McKinley—length 75 feet, \$9.00.

The art of making moving picture films has progressed until the work that is now being done at the Edison laboratory leaves little to be desired from the standpoint of artistic photographic excellence, as well as in the durability of the film stock.

The list of film subjects that is now at the disposal of exhibitors covers an enormously wide variety of topics, some of them of great historical value. Many of the subjects will in the future attain value as pictorial history which cannot be estimated in money.

Such films as President McKinley's last speech and the funeral ceremonies at Buffalo, Washington and Canton, and Prince Henry's visit to the United States, will offer material for accurate description that was impossible previous to Mr. Edison's invention of the kinetoscope and moving picture films.

In order to form a proper conception of the future value of these subjects, one needs only to draw a parallel; the United States Government paid \$50,000 for the only set of photographic plates that was made of battle scenes and localities during the Civil War; this set of photographs is to-day priceless, although they are merely ordinary photographs of no special merit when compared with the photographic work of to-day. The value, therefore, of moving pictures that illustrate events and places of national importance is incalculable.

CHOICE COLORED SLIDES WITH MOTION.

These may be used in a Single Lantern, and produce very beautiful and novel effects by giving revolving, slip, or eccentric motions to the scene.	
No. 1. THE DANCING SKELETON.	(A new and very striking effect). \$3.75
By a peculiar Mechanical arrangement the Skeleton is made to bow with his head in his hand, to dance, etc., in a most LIFELIKE manner. Music may be used, and the figure be made to dance to jig time with the most mirth-provoking effect.	
No. 2. CASTLE ON LAKE MAGGIORE, ITALY.	(Very beautiful). \$3.00
An Italian night scene. A boat, containing a Lover, glides over the moonlit waters; he serenades his mistress in the Castle, after which she glides out upon the balcony.	
No. 3. BOMBARDMENT OF FORT SUMTER.	The Ironsides throwing shell. \$3.00
No. 4. VIEW OF OLD RUINS—which, by being turned round, changes to Portrait of an Old Woman. \$3.00	
No. 5. HOLLAND WIND-MILL with Revolving Fans.	\$3.00
No. 6. FOUNTAIN.	\$2.25
No. 7. NEWTON'S DISC: revolving slides with prismatic colors, for recomposing white light. (Beautiful effect) \$3.50	
No. 8. RAT CATCHER, man sleeping, awakes and swallows one rat after another in quick succession. (Very laughable). \$2.25	
No. 9. MOUNT VESUVIUS—Eruption; throws out Fire and Smoke; good for one lantern. \$3.00	
No. 10. MOVING WATERS.	Represents the Waters moving in the Moonlight. (A very beautiful and natural effect). \$2.25
No. 11. GOOD NIGHT IN WREATH.	A Wreath of Flowers, in which appears a Sleepy Child in her night-gown, holding a candle. She disappears and is succeeded by the words "Good Night." (Excellent for closing). \$2.25
No. 12. ROTATION OF EARTH ON ITS AXIS.	Showing the cause of day and night. \$3.00
No. 13. THE EARTH'S ROTUNDITY.	Proved by a ship sailing around the Globe and a line drawn from the eye of an observer placed on an eminence. \$3.00
No. 14. THE DANCING SAILOR.	A new and striking effect, having a motion similar to the Dancing Skeleton. \$4.00
No. 15. CURTAIN SLIDE.	Represents the rolling up of a curtain. \$3.00
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Chromatropes, or Artificial Fireworks.

These Slides are singularly curious, the effect being very similar to that of the Kaleidoscope. The Pictures are produced by brilliant designs painted upon two circular glasses, and the glasses made to rotate in different directions. An endless variety of changes in the pattern is caused by turning the wheel—sometimes slowly—then quickly—backward and forward. Size, 4 inches wide.

1. "THE NATIONAL FLAG" CHROMATROPE. Each \$3.00. From Designs expressly made to introduce the Colors of our Glorious National Flag.

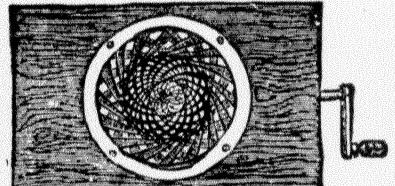
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No. 8 A new style of Chromatope, with twelve highly colored Revolving Chromatropes Discs, and a Rack-work Frame, in which any two of the Discs can be placed, thus affording an endless variety of Chromatic effects at a very low price.

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Colored, Mounted in Wood, \$1.50 Each.

Angel's Prayer.	In a fix.
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Apparition of Sacred Heart of Jesus.	Ocean's Foam.
Anatomical Lesson — Rembrandt.	Off for the Wars—Middle Ages.
Béatrice Cenci—Guido.	Pursuit of a Whale.
Death of Robin Hood.	Profane Music.
Faust and Mephistopheles in Auerbach's Cellar.	Spirit of '76.
Faust Visiting Marguerite in Prison.	Sperm Whale Seizing Boat.
	Seal Fishery.
	Sacred Music.
	Sharking.
	Song Without Words.
	Schoolmaster in Love.
	Tale of a Goose.
	Triumph of Ariadne.
	Unwelcome Visitor.
	Who's Afraid?
	Witch Returning to Her Cave.
	Waves Breaking on Shore.
	Westward, Ho.
	Wild Horse Hunting in Russia.

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Round Views, mounted in square wood holder, 4x7 inches, colored, \$1.50 each.

The most convenient, impressive and economical mode of illustrating the ceremonies of Secret Societies. The lists give the views generally in demand, though other views can be made to order from any engravings or designs that may be furnished. (Price of such special views, finely colored, \$2.00 each; uncolored, \$1.00 each.)

Masonic.

Entered Apprentice Degree.

1. Holy Bible, Square, Compass and Warrant.
2. Ancient Lodge in Valley.
3. Form of Lodge.
4. Supports of Lodge.
5. Jacob's Ladder.
6. Furniture of Lodge.
7. Ornaments of Lodge.
8. Lights of Lodge.
9. Jewels of Lodge.
10. Tabernacle in Wilderness.
11. St. John Baptist and St. John Evangelist.
12. Masonic Tenets.
13. Points of Entrance.
14. Chalk, Charcoal and Clay.

Fellow-Craft Degree.

15. Pillars of the Porch.
16. Five Orders of Architecture.
17. The Five Senses.
18. Seven Liberal Arts.
19. Scene at the Waterfall.
20. Corn, Wine and Oil.
21. Allusion to the Letter G.

Master Mason's Degree.

22. Building Solomon's Temple.
23. Marble Monument (uncolored, \$1.00).
24. Ancient Grand Masters.
25. Entered Apprentice's Lodge.
26. Fellow-Craft Lodge.
27. Master Mason's Lodge.
28. Three Steps.
29. Pot of Incense.
30. Bee-hive.
31. Book of Constitutions Guarded by Tyler's Sword.
32. Sword Pointing to Naked Heart; All-Seeing Eye.
33. Anchor and Ark.
34. Forty-seventh Problem (uncolored, \$1.00).
35. The Hour Glass.
36. The Scythe.
37. Emblems of Mortality.

Royal Arch Chapter.

38. Map of Country between Jerusalem and Babylon.
39. The Tower of Babel.
40. Hanging Gardens, Babylon.
41. Handwriting on the Wall.
42. Babylon Taken by Cyrus.
43. Source of River Euphrates.
44. Ruins of Anath.
45. Ruins of Rabba.
46. Country of Mesopotamia.
47. Sandy Desert.
48. Ruins of Palmyra.
49. Ruins near Damascus Gate.
50. Forests of Lebanon.
51. Quarries of Zeredathah.
52. Jerusalem in Ruins.
53. Tabernacle of Zerrubbabel.

54. Burning Bush, with Moses.

55. Burning Bush, without Moses.

56. Clay Ground and Succoth of Zeredathah.

57. Bringing Log to Joppa.

Commandery.

58. Angel at Sepulchre.
59. The Marys at Tomb.
60. Ascension of Christ (with lever ascension movement to the figure, \$3.50).

Prelate.

61. Valley of Dry Bones.
62. The Crucifixion.
63. Body of Christ in Tomb.
64. Resurrection of Christ.
65. The Cross.
66. The Pilgrim.
67. The Knight.
68. The Penitent.

69. Christ on the Cross.

70. Death on the Pale Horse.

71. Human Skull (uncolored, \$1.00).

72. John at Patmos.

73. Faith at the Cross (uncolored, \$1.00).

74. Cross and Crown of Glory with motto.

Odd-Fellows.

Initiatory Degree.

1. All-Seeing Eye.
2. Three Links.
3. Skull and Cross Bones.
4. The Scythe.

Motto—From Darkness to Light.

First Degree.

5. Bow, Arrow and Quiver.
6. Bundle of Sticks.

Motto—in Friendship Forever.

Second Degree.

7. The Axe.
8. Heart and Hand.
9. The Globe.
10. The Ark.
11. The Serpent.

Motto—Brotherly Love.

Third Degree.

12. Scales and Sword.
13. The Bible.
14. The Hour Glass.
15. The Coffin.

Motto—Truth the Imperial Virtue.

Encampment Emblems.

16. The Three Pillars.

17. The Tent.

18. The Pilgrim's Srip, Sandals and Staff.

19. The Altar of Sacrifice.

20. The Tables of Stone, etc.

21. Altar of Incense.

Daughters of Rebecca.

Rebecca at the Well.

Mother of Samson.

Hannah.

Esther implores Ahasuerus.

Ruth.

Ruth and Naomi.

Sarah.

Miriam.

Queen Elizabeth.

Cleopatra.

Catharine de Medici.

Isabella.

Pines on Mountain Side.

Trees Marking Water-course.

Narrow Defile.

A. O. U. W.

Official A. O. U. W. slides can be bought only from the Supreme Recorder, M. W. Sackett, Meadville, Pa., through the Grand Recorders of the various grand jurisdictions.

Knights of Pythias.

First Rank.

1. Friends Damon and Pythias.
2. Damon Condemned to Die.
3. Pythias Appeals to Dionysius.
4. The Flight of Damon to his Family.

5. Pythias in Dungeon, Calantha's Appeal.

6. Damon's Farewell to his Family.

7. Pythias at Headsman's Block.

8. Pythias Saved by Damon's Arrival.

9. Heroes Honored by King.

10. Beautiful Unknown Shore.

Third Rank.

1. Ancient Egyptian Art.

2. The Flowery Plain.

3. The Mountain's Side.

4. The Sunless Sea.

5. Where Hideous Creatures Climb.

6. The Hero.

Sixth Senator.

1. The Battlefield.

2. The Wounded Soldier.

3. Wounded Soldier Relieved.

Gem Slides (Views) for Use in the Magic Lantern and Stereopticon.

The size of a regular standard slide is 3½x4 in., this slide having a single view (picture) 3 in. in diameter, or square. The Gem slides are 2½ in. wide, 8 in. long, and each slide contains three views (pictures) 2 in. in diameter, or square. It will thus be seen that the view of the Gem slide is but two-thirds the size of that of the view of the standard size slide, consequently the picture projected upon the screen from a Gem slide will be but two-thirds the size of that projected from a standard size, with the lantern at same distance from screen. This, and the fact that the Gem slide contains three views, whereas the standard size contains but one, is the only way in which the Gem differs from the standard size. The fact that each Gem slide contains three views reduces the cost of views to the exhibitor to just one-third what he would have to pay for standard size, while the difference in the size of the image projected makes no material difference.

In quality, finish and general excellence they are very desirable.

They are suitable for use in any lantern, from a toy having a slide stage 2½ in. in height, to the most powerful lime light or electric light stereopticon, and are specially recommended to the exhibitor with small capital who wishes to keep the cost of his outfit within certain limits.

When ordering Gem slides be sure to order a Gem slide carrier, if you have not already one or more in your possession.

Price of Gem Slides, plain uncolored. Each.....\$0.40

Price of Gem Slides, artistically and correctly colored. Each.....\$.85

No. 949. Lecture Set—From the Time of Adam.

With Printed Lecture.



From Slide No. 120.

By the eminent bibliophile, Rev. H. C. Scottford, illustrated by 32 gem slides (96 views). This set is an extremely interesting one to students of sacred history. It begins with an ideal picture of the creation of Eve, illustrates the life, death and ascension of Christ, and ends with the shipwreck of Paul on the island of Melita. When the full set is purchased we furnish the printed lecture free. The slides are:

No. 120. Creation of Eve, the Expulsion from the Garden, the Murder of Abel.

No. 121. The Deluge, Noah cursing Ham, The Tower of Babel.

No. 122. Abraham Entertains Three Strangers, the Destruction of Sodom, The Expulsion of Hagar.

No. 123. Hagar in the Wilderness, Trial of the Faith of Abraham, the Burial of Sarah.

No. 124. Eliezer and Rebekah, Isaac Blessing Jacob, Jacob Tending the Flocks of Laban.

No. 125. Joseph sold into Egypt, Joseph Interpreting Pharaoh's Dream, Joseph Making Himself Known to His Brethren.

No. 126. Moses in the Bulrushes, The War Against Gideon, Sisera Slain by Jael.

No. 127. Deborah's Song of Triumph, Jephtha's Daughter and Her Companion.

No. 128. Samson slaying the Lion, Samson and Delilah, Death of Samson.

No. 129. Naomi and Her Daughters-in-Law, Ruth and Boaz, the Return of the Ark.

No. 130. Saul and David, David Spares Saul, The Death of Saul.

No. 131. The Death of Absalom, David Mourning Over Absalom, Solomon.

No. 132. The Judgment of Solomon, Cedars Destined for the Temple, The Prophet Slain by a Lion.

No. 133. Elijah Destroying the Messengers of Ahaziah, Elijah's Ascent in a Chariot of Fire, The Death of Jezebel.

GEM STEREOPTICON VIEWS—Continued.

No. 134. Esther Confounding Haman, Destruction of Sennacherib's Host, Ezekiel Prophesying.

No. 135. The Vision of Ezekiel, Daniel, The Fiery Furnace.

No. 136. Belshazzar's Feast, Daniel in the Lion's Den, The Prophet Amos.

No. 137. Jonah Calling Nineveh to Repentance, Daniel Confounding the Priests of Bel, Heliudorus Punished in the Temple.

No. 138. The Nativity, The Star in the East, The Flight Into Egypt.

No. 139. The Massacre of the Innocents, Jesus Questioning the Doctors, Jesus Healing the Sick.

No. 140. Sermon on the Mount, Christ Stilling the Tempest, The Dumb Man Possessed.

No. 141. Christ in the Synagogue, Disciples Plucking Corn on the Sabbath, Jesus Walking on the Water.

No. 142. Christ's Entry Into Jerusalem, Jesus and the Tribute Money, The Widow's Mite.

No. 143. Raising the Daughter of Jairus, The Good Samaritan, Arrival of the Samaritan at the Inn.

No. 144. The Prodigal Son, Lazarus and the Rich Man, The Pharisee and the Publican.

No. 145. Jesus and the Woman of Samaria, Jesus and the Woman Taken in Adultery, The Resurrection of Lazarus.

No. 146. The Last Supper, The Agony in the Garden, Prayer of Jesus in the Garden of Olives.

No. 147. The Betrayal, Christ Fainting under the Cross, The Flagellation.

No. 148. The Crucifixion, The Close of the Crucifixion, The Burial of Jesus.

No. 149. The Angel at the Sepulchre, The Journey to Emmaus, The Ascension.

No. 150. Martyrdom of St. Stephen, Saul's Conversion, Deliverance of St. Peter.

No. 151. Paul at Ephesus, Paul Menaced by the Jews, Paul Shipwrecked.

Complete set, with lecture, plain slides \$12.80

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Each slide, plain40

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No. 953 Gem Slides—Temperance, the Bottle.

No. 25. The Bottle is Brought Out

for the First Time, Discharged for Drunkenness, Execution Sweeps Off the Furniture.

No. 26. Unable to Obtain Employment, Cold, Misery and Want, Fearful Quarrels.

No. 27. The Husband Kills His Wife, The Bottle Has Done Its Work, Delirium Tremens.

No. 955 Gem Slides—Temperance, Drunkard's Progress.

No. 21. Domestic Happiness—the greatest of earthly blessings; The Temptation, Introduction of Sorrows—a loving heart made sad.

No. 22. The Rum Hole, a Substitute for Home; Rum instead of Reason, Degraded Humanity.

No. 23. The Cold Shoulder by Old Friends, Rum-seller's Gratitude—rejection instead of injection; Poverty and Want.

No. 24. Robbery and Murder, the result of Drunkenness; Mania a Potu, the horror of horrors; The Death that Precedes Eternal Death.

No. 957 Gem Slides—Temperance, Ten Nights in a Bar-Room.

No. 28. Arrival at the "Sickle and Sheaf." Joe Morgan's little Mary begs him to go home. Slade throws a glass at Joe Morgan and hits Mary.

No. 29. Joe Morgan suffering the horrors of delirium tremens. Death of Joe Morgan's little Mary. Frank Slade and Tom Wilkins riding off on a spree.

No. 30. Willie Hammond is induced by Harvey Green to gamble. Harvey Green stabs Willie Hammond to death. Quarrel between Slade and his son Frank.

No. 31. Frank Slade kills his father with a bottle. Meeting of the citizens in the bar-room. The departure from the "Sickle and Sheaf."

No. 959 Gem Slides—Temperance, Drunkard's Daughter.

No. 102. Her mother dying, she is left alone in the world. She endeavors to support herself by sewing shirts. Payment for her work is refused for alleged imperfections.

No. 103. Unable to pay her rent, she is turned into the street. In a moment of despair she plunges into eternity. Take her up tenderly, lift her with care.

GEM STEREOPTICON VIEWS—Continued.

No. 961 Gem Slides—Uncle Tom's Cabin.

No. 104. George Harris Takes Leave of His Wife, An Evening in Uncle Tom's Cabin, Escape of Eliza and Child on the Ice.

No. 105. Uncle Tom Sold and Leaving His Family, Eva St. Clare Makes a Friend of Uncle Tom, Uncle Tom Saves Eva from Drowning.

No. 106. George Harris Resisting the Slave Hunters, Eva and Topsy, Eva Reading to Uncle Tom.

No. 107. Eva's Dying Farewell, Legree's Cruelty to Uncle Tom, Death of Uncle Tom.

No. 965 Gem Slides—Foreign Scenery.

No. 14. Paris: Panorama of Paris, Notre Dame, The Louvre.

No. 967 Gem Slides—American Scenery.



From Slide No. 1.

No. 1. Niagara Falls, Mirror Lake, Yosemite, The Pool, White Mountains, N. H.

No. 78. New York: Central Park, Post Office, Stewart's Store.

No. 79. New York: City Hall, East River Bridge, Elevated Railroad.

No. 80. New York: Shipping, East River; The Tombs; Trinity Church.

No. 81. Washington: Capitol, White House, War Department.

No. 82. Washington: Smithsonian Institute, Patent Office, Treasury Building.

No. 83. Boston: Faneuil Hall, Bunker Hill Monument, Old South Church.

No. 84. Philadelphia: Independence Hall, Girard College, Masonic Hall.

No. 85. Harbor of San Francisco, Capitol, Sacramento, Salt Lake City.

No. 86. San Francisco: Palace Hotel, Chinese Joss House, exterior; Chinese Joss House, interior.

No. 87. Yosemite: Cathedral Rock, Yosemite Falls. Yellowstone: Bee Hive Geyser.

No. 88. Salt Lake City: Brigham Young's House, Mormon Temple, exterior; Mormon Temple, interior.

Chicago Series.

No. 250. Lincoln Park: General View, Statue of Gen. Grant, Flower Garden.

No. 251. Lincoln Park: The Boat House, Statue of Lincoln, The Fountain.

No. 254. Lincoln Park: The Peace Signal. Humboldt Park: Conservatory and Boat House.

No. 255. Humboldt Park: Statue of Von Humboldt, Statue of Fritz Reuter. Scene in Washington Park.

No. 258. Washington Park: The Lake, "Ring Around the Rosy," Children Wading.

GEM STEREOPTICON VIEWS—Continued.

No. 261. General View, Jefferson Park; General View, Union Park; Congregational Church near Union Park.

No. 262. A Lake Steamer, a Lumber Schooner in Chicago River, Shipping in North Branch, Chicago River.

No. 263. Lift Bridge, Halsted Street, open; Lift Bridge, Halsted Street, closed; Chicago River and Elevators.

No. 264. Residence of Potter Palmer, The Lake Shore Drive, Astor Street.

No. 265. Residence of Geo. M. Pullman, Residence of H. N. Higinbotham, Michigan Avenue, south of 29th Street.

No. 266. The Armour Institute, Residence of P. D. Armour, Residence of P. D. Armour, Jr.

No. 267. Panorama from Auditorium; Looking north, looking northwest, looking south.

No. 269. Field Columbian Museum; Main Entrance, Statuary at Entrance, Caryatides.

No. 271. Chicago Academy of Sciences, Chicago University Buildings, De La Salle University.

No. 272. Chicago Art Institute: Building, Bronze Lions, Interior View.

No. 274. Grand Boulevard, South Park Avenue, south of 32d Street. Alldine Square.

No. 277. Masonic Temple, Court House and City Hall, Post Office (old).

No. 278. Chicago and Northwestern Railroad Depot, Dearborn Railroad Station, Van Buren Street and Rock Island Depot.

No. 280. Haymarket Square; Police Monument, Haymarket Square; Douglass Monument.

No. 281. North Side Water Works, North Side Water Works Tower, Clark Street and Ashland Block.

No. 284. Statue of Columbus, The Auditorium, Great Northern Hotel.

No. 285. The Woman's Temple, The Board of Trade Building, Monadnock Building.

No. 287. Title and Trust Building, Chamber of Commerce Building, Tacoma Building.

No. 973 Gem Slides—United States History, Etc.

No. 66. Landing of Columbus, 1492; Marriage of Pocahontas, 1613; Landing of the Pilgrims, 1620.

No. 67. Penn's Treaty with the Indians, 1682; Battle of Bunker Hill, 1775; Washington Crossing the Delaware, 1776.

No. 68. Declaration of Independence, 1776; Washington at Valley Forge, 1777; Indian Massacre at Wyoming, 1778.

No. 69. Capture of Major Andre, 1780; Surrender of Cornwallis, 1781; Commodore Perry at Lake Erie, 1813.

No. 70. Old Abe After the Battle, Yankee Doodle, Goddess of Liberty.

No. 975 Gem Slides—American Civil War.



From Slide No. 71.

No. 71. Bombardment of Fort Sumter, Battle of Bull Run, Battle of Wilson's Creek.

No. 72. Battle of Roanoke Island, Capture of Fort Donelson, Battle of Pittsburg Landing.

No. 73. Capture of New Orleans, Battle of Fair Oaks, Battle of Antietam.

No. 74. Attack on Fredericksburg, Battle of Gettysburg.

No. 75. Battle of Chickamauga, Battle of Lookout Mountain, Battle of the Wilderness.

No. 76. Attack on Fort Wagner, Capture of Petersburg, Naval Combat between Monitor and Merrimac.

No. 77. Naval Combat between Kearsarge and Alabama, Sherman's March through Georgia, Surrender of General Lee.

No. 977 Gem Slides—Comic.



From Slide No. 89.

No. 89. Another Negro Rising; same, Pleasure Before Business.

GEM STEREOPTICON VIEWS—Continued.

No. 90. Poor Donkey, Poor Children, That Husband of Mine.

No. 91. The Three Graces, Great Expectations, A Pleasure Party.

No. 60. Romance, Reality, Injured Innocence.

No. 61. Bulldozing; Picturesque Africa; Hold on to Suffin', It's Goin' Off Dis Tim'.

No. 62. "Dey Say I Can't—But I've Gone Done It"; Platonic Love.

No. 63. Nip and Tuck; Battle for Doll, Both Victorious; We Met by Chance.

No. 64. Come Into the Garden, Maud; I Will Not Ask to Press that Cheek; Take Back the Heart Thou Gavest.

No. 65. "Twere Vain to Tell Thee All I Feel; Darling, I Am Growing Old; 'Twas a Calm, Still Night.

No. 175. Faith; Say, Boss, Who Curls Yer Hair? Gin and Milk.

No. 176. Jump In, Mister, I Want to Try My Dog! Just Saw Your Husband Go Into the Y. M. C. A. Rooms, Marm; Genral Washington, Yo Put Yo Shoes On or People'll T'ink Youah Irish.

No. 177. Happy Father—What! Two! Happy Father—3 O'clock in the Morning: Now, Marm, Say When.

No. 178. Massy Sakes! Ya He Goes! Look Out Dar, Sumfin's Gwine to Drap; "Sumfin Did Drap."

No. 179. Well, Boy, What Are You Going to Do With That Can? Mike Murphy Is Admitted to the Best Houses in the City, Pat McCarthy is Rising in the World.

No. 180. How Biddy Shamed the Petaties, How Biddy Scalloped the Oysters (with the scissors), How Biddy Served Potatoes Undressed.

No. 181. Why Gas Bills Are High When the Family is Away; Scene in a Street Car; Bliss Disturbed.

No. 182. Chicken on Half Shell; Seems to Me I Smell Burnt Rags, She Stoops to Conquer.

No. 183. Dawgy! Dawgy! Where Ish Dat Tamn Tawg? Hans, if You Marry Me You Can Haf Dem Music Ol de Times; I Never Likes to Go Shooting With a Man What's Careless.

No. 184. Where the Devil Did I Eat that Dog? Oh! What a Meeting that Will Be! Come! Come Along, Do!

No. 185. Boss in (heads), Boss Out (feet); Don't Move! Something's Got to Come This Time; What a Little Child Can Do.

No. 186. Trouble in de Church—Pull Down Your Vest! Trouble in de Church—Wipe Off Your Chin! Well I Should Smile.

No. 985 Gem Slides—Spanish-American War.



From Slide No. 455.

No. 450. U. S. Battleship Illinois, U. S. Battleship Oregon, U. S. Gunboat Annapolis.

No. 451. U. S. Gunboat Marietta, U. S. Cruiser Brooklyn, U. S. Cruiser New York.

No. 452. U. S. Battleship Texas, U. S. Battleship Maine, Wreck of the Maine Amidships.

No. 453. Wreck of the Maine, U. S. Divers; Wreck of the Maine, a Spanish Diver; Wrecking Boat at Work.

No. 454. U. S. Cruiser Boston; Wig-Wag Signaling U. S. Navy; Revolver Practive, U. S. Navy.

No. 455. U. S. Cruiser Olympia, Troops Leaving California for Manila, Forts of San Juan and Porto Rico.

No. 456. Capt. Sigsbee U. S. Navy; Premier Sagasta, Capt. Gen. Weyler.

No. 457. Admiral Dewey, Admiral Sampson, Admiral Schley.

No. 458. Capt. Evans, Lieut. Hobson, Capt. Clark.

No. 459. Gen. Miles, Gen. Shafter, Col. Roosevelt.

No. 460. Forward Turret of the Indiana, Mortar Battery in Action, 12-in. Coast Defense Gun.

No. 461. Review of Troops at Camp Alger, U. S. Army Camp at Chickamauga Park, Loading U. S. Transports.

No. 462. Troop Ships Starting for Cuba, Loading Artillery at Tampa, Fla.; Landing Artillery at Baiquiri, Cuba.

No. 463. Pneumatic Guns of the Vesuvius, Embarkation of Mules for Cuba, Conference Between Gen. Wheeler and Spanish Officials.

GEM STEREOPTICON VIEWS—Continued.

- No. 464. On Picket Duty (Cavalry) at Santiago; Difficulties of a March in Cuba, A Cavalry Outpost at Santiago.
- No. 465. Battle of Santiago—Artillery; Battle at El Paso—Artillery; Battle at El Caney.
- No. 466. Storming of the Hill at San Juan, Fight at Siboney, Burial of the Dead.
- No. 467. A Spanish Officer Reconnoitering, A Spanish Outpost—Natural Stockade, An Insurgent Vedette.
- No. 468. U. S. Fleet Blockading Santiago, Spanish Fleet Blockaded in Santiago Harbor, The St. Paul Chasing a Spanish Vessel.
- No. 469. In the Main-Top, Cutting Cables at Cienfuegos Under Fire, Capture of a Spanish Vessel by Men-of-War.
- No. 470. Destruction of the Viscaya, Destruction of the Cristobal Colon, Destruction of Oquendo.
- No. 471. Destruction of Maria Teresa, Annihilation of Cervera's Fleet, Naval Battle of Manila.
- No. 987 Gem Slides—The Philippine Islands.
- No. 497. Native Troops, A Philippine Farm, Planting Rice.
- No. 498. Scenery Along a Bayou, A Typical Forest Scene, Street Scene in Batangas.
- No. 499. The Bay, Across from Manila; Bacoor, Suburb of Manila; Sante Mesa, Manila.
- No. 989 Gem Slides—Cuba.
- No. 500. View of the City and Harbor, Havana; The Rainy Season in Town, the Rainy Season in the Country.
- No. 501. The Beach at Baiquiri, Iron Foot Bridge at Baiquiri, Harbor and Town of Santiago.
- No. 502. Panorama from Across the Bay, Havana; Morro Castle, Havana; La Fuerza, Havana.
- No. 503. The Prado, Havana; Botanical Gardens, Havana; Harbor Looking North, Havana.
- No. 504. Palace of Captain General, Havana; A Bull Fight, Havana; The Homes of the Poor, Havana.
- No. 505. Harbor of Santiago; St. Thomas Street, Santiago; Entrance to the Harbor, Santiago.
- No. 506. Morro Castle, Santiago; The Yumuri River, at Matanzas; General View of Matanzas.
- No. 507. View of Plaza, Cienfuegos; A Cuban Sugar Plantation; Sacre Monte (Sacred Mountain).
- No. 508. El Caney, Waterway Near Bahia Honda, Cattle Scene in Eastern Cuba.
- No. 509. Village in Southwest Cuba, Cuban Ox Carts, A Farm Scene in the Mountains.
- No. 990 Gem Slides—The Hawaiian Islands.
- No. 515. Hauling Sugar Cane to Mill, Crater of Mt. Kilauea, Lava Beds, Crater of Mt. Kilauea.
- No. 516. Driveway to Hotel, Honolulu; Queen Emma Hospital, Honolulu; Grounds of Queen's Hospital, Honolulu.
- No. 517. Native Boys Diving for Pennies, Honolulu from the Punch Bowl, Royal Household Guards, Honolulu.
- No. 518. Prisoners in Jail Yard, Honolulu; Detachment of U. S. Marines, Honolulu; Fort Street, Honolulu.
- No. 519. A Native Grass House, Hawaiian Women Picnicking, Flower Girl of Honolulu.
- No. 520. Executive Building and Grounds, Honolulu; Grounds of a Private Residence, Honolulu; A Street Scene in Honolulu.
- No. 521. Kalakau I., Liliuokalani; S. B. Dole, President Hawaiian Republic.
- No. 522. Gathering Eggs of Sea Birds, Wailua Falls, Rainbow Falls.
- Gem Slides, Each, Plain.....\$0.40
Gem Slides, Each, Colored..... 85

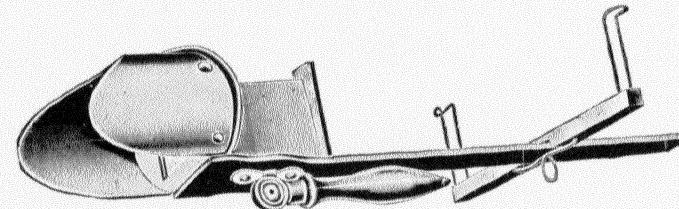
Stereoscopes and Stereoscopic Views.

Attention is called to our line of Scopes and Views. We supply the best grades at lowest possible prices.

This most beautiful branch of photography is enjoying immense popularity; a revival of interest that is insuring many devotees who recognize the marvelously beautiful results which are possible with the stereoscope.

Buyers will find our prices and our goods right.

STEREOSCOPES.



No. 720. Stereoscope. Cherry frame, small lens, wood folding handle, imitation rosewood hood.

Each	\$0.30
Per Dozen	3.00

No. 724. Stereoscope. Oiled cherry, polished cherry hood, folding handle, good sized, fine quality lenses.

Each	\$0.45
Per Dozen	4.50

No. 726. Stereoscope. Black walnut frame, oiled, polished rosewood hood, folding handle, large size best quality lenses.

Each	\$1.10
Per Dozen	10.00

STEREOSCOPIC VIEWS.

We publish nearly all our views from our own negatives, and they cannot be excelled, either in beauty of subject, quality of work or value, at anything like prices at which we list them.

Private Collections are being constantly made by persons who appreciate the instruction and amusement derived from the possession of a well selected collection of photographic views, and as each individual has tastes and preferences for certain subjects the varied character of those herein presented will furnish an abundant field to choose from.

The Views contained in this list illustrate almost every subject of general interest, and a perusal of the descriptions will guide buyers in selecting all that is necessary to make up a complete and comprehensive selection of stereoscopic photographs on almost any desired subject.

Our List of Views is too large for us to fill orders for single subjects from same. All views sold are our selection. As a rule we can fill orders for from 60 to 75 views out of any of the detailed series without duplicating any subjects. Orders for larger quantities will be filled with as many subjects as possible, though we cannot guarantee that there will be no duplicates. However, we will assort all numbers of the different series, if desired, at prices quoted. We will not sell less than one dozen at the dozen price.

STEREOSCOPIC VIEWS—Continued.

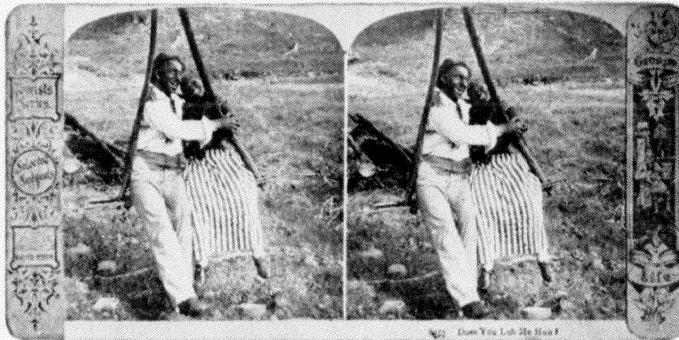
New Subjects. We are constantly procuring new subjects from all parts of the world, and these will be added to their proper series as received. Years of experience in the view business put us in position to serve you promptly, intelligently and with satisfaction.

Artistic Hand-Painted Views Our Specialty. Coloring gives a life-like appearance and adds much beauty to the picture. Many good judges consider our Hand-Painted Views to have all the effect of photographs in natural colors. This work must be seen to be appreciated. It is expensive in appearance, cheap only in price. Each detail is retained and in many cases improved.

Note.—As a matter of information to our customers, we name the line of railroad along which our scenic views are made. This assists customers living along these lines to obtain views of local interest.

The Tourists' Series of Stereoscopic Views.

Price, each, 10 cents; per dozen, \$1.00.
Colored, each, 15 cents; per dozen, \$1.50.



From "America Illustrated," of the Tourists' Series of Original Views.

The views comprising the Tourists' Series are from original retouched negatives made by our own artists, and are splendid specimens of photographic art. All are full sized, mounted on heavy cards, 3½x7 inches.

The Tourists' Series is surpassed by none. They are the best views obtainable in beauty of subject and in general excellence, while our prices are much lower than are asked by other houses for inferior goods. Postage, 8c per dozen.

No. 50. America Illustrated: Alaska and the Klondike. A splendid collection of views illustrating the scenery of river and forest of the great north-western Territory, together with many fine pictures made in the cities and mining camps of this little explored part of Uncle Sam's domain. A series of much interest.

No. 52. America Illustrated: Canada and Mexico. This is an exceptionally fine series, embracing as it does fine pictures of places of interest in Canada and Mexico. Nearly all the Mexican views were made along the line of the Mexican Central Railroad. They splendidly depict the

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beautiful and varied scenery of Mexico from Ciudad Juarez (opposite El Paso, Texas), to the City of Mexico. Along the route lies the famous Tampasopo Canon, and the series includes many pictures of the magnificent scenery of this region. An intelligent study of these views will give one an excellent idea of the quaint customs and homes of ancient and modern Mexico. The series embraces about 100 subjects.

No. 54. America Illustrated: Typical American Cities. In this series we have gotten together a superb collection of views of places and incidents of interest in the great cities of New York, Philadelphia, Washington

STEREOSCOPIC VIEWS—Continued.

and Chicago. These pictures are of unusual interest to the Farmer population, who have little opportunity of visiting the cities, as they give a correct idea of Metropolitan life. The Chicago views embrace a large number of pictures of the great Chicago Fire which destroyed the city in 1871. Also a splendid collection of Chicago stock yards views. About 200 subjects.

No. 56. America Illustrated: Santa Fe Series. (Views made along the lines of the Atchison, Topeka & Santa Fe Ry.). This is a splendid series of views, and well illustrates the varied and beautiful scenery along the lines of the Santa Fe, most of the views being made along the lines of this system. The series embodies views made in the picturesque valley of the Desplaines River in Illinois, of the great Chicago Drainage Canal and scenery along its route; places of interest in Missouri, Oklahoma, Kansas and Texas; mountains and farm lands of Colorado, New Mexico and Arizona, and a fine collection of pictures of California scenery from The Needles to San Francisco, including many views made in the magnificent Tehachapi Mountains. About 150 subjects.

No. 58. America Illustrated: Moki Land and the Moki Snake Dance. (On the line of the Atchison, Topeka & Santa Fe Ry.). The singular people inhabiting the seven Pueblo cities of the province of Tusayan, Ariz., are types of a most interesting race of Aborigines fast vanishing from the earth. Their origin is surrounded in mystery. Their cities are perched upon the crest of lofty "mesas," surrounded by the arid plains of Arizona, and are well nigh inaccessible to enemies. The Mokis continue to live as did their forefathers, and have proven intractable to the influence of Christian civilization, clinging with fervor to their elaborate pagan ceremonies. The great snake dance of the Mokis

occurs once in two years, and is a dramatized prayer for rain. During its progress the reptiles are employed as messengers to carry petitions to the gods of the under world, who are supposed to have power over the rain clouds. Our series of views embraces about 80 subjects, and splendidly illustrates this pagan ceremony, together with the homes, customs, people and country of the Mokis.

No. 60. America Illustrated: Grand Canon of Arizona: (On line of the Atchison, Topeka & Santa Fe Ry.). The series of tremendous chasms which form the channel of the Colorado River in its course through Northern Arizona reach their culmination in a chaotic gorge 217 miles long, from 9 to 13 miles wide and midway more than 6,600 feet below the level of the plateau, and known as the Grand Canon of Arizona. Standing upon the brink of the canon, at its greatest width and depth, the beholder is confronted by a scene whose majesty and beauty is indescribable. Spread out below him is a vast under world of incredible depth and of the most brilliant and harmonious coloring. A picture which once seen is forever impressed upon the mind. Our series of views is comprised of about 40 subjects, and well illustrates this marvelous region.

No. 62. America Illustrated: The St. Paul Series. The fine pictures constituting this splendid series are peculiarly characteristic of the beautiful scenery of Wisconsin and Minnesota. Nearly all the views were made along the line of the Chicago, Milwaukee & St. Paul Ry. The series embraces views made in the celebrated dells of Wisconsin; scenery along the banks of the Mississippi River; views in the great fishing and hunting country of the state, and many interesting pictures of places of interest in and near the cities of La Crosse, Wis., and Min-

STEREOSCOPIC VIEWS—Continued.

neapolis and St. Paul, Minn. About 150 subjects.

No. 64. **America Illustrated: L. & N. Series.** This is a most interesting and desirable series of the grand scenery of Kentucky, Virginia and Tennessee along the line of the Louisville & Nashville Railway, between Louisville, Ky., and Cumberland Gap, Tenn., nearly all the views being made on this line. In the series are embraced many splendid views of places of interest in the historic Cumberland Mountains, of the scenery in the famous Blue Grass country and along the Columbia and Powell Rivers, together with many pictures of interesting places in Louisville and Middlesborough. About 175 subjects.

No. 66. **America Illustrated: Queen & Crescent Series.** This is a magnificent collection of views embracing every point of interest along the line of the Queen & Crescent Route between Cincinnati, Ohio, and Chattanooga, Tenn. The grandeur of the Blue Ridge Mountains, the sublimely beautiful scenery of "Old Kentuck" and Tennessee, the beauties of the route along the Ohio, Emory, Tennessee and Cumberland Rivers, are well illustrated; combined with these are many splendid pictures made in the cities of Cincinnati, Lexington, Ky., and Chattanooga, Tenn. About 200 subjects.

No. 68. **America Illustrated: Chickamauga Park and Lookout Mountain Series.** (On the line of the Queen & Crescent Route). Chickamauga and Lookout Mountain are historic points of unusual interest to North and South. Here during the war of the Rebellion Northern valor met Southern bravery in a struggle that proved both and shamed neither. Chickamauga Park proper is situated partly in both Catoosa and Walker Counties, Georgia, and has an area of about 15 square miles. Auxiliary to this the government has acquired many hundred acres of land inclosing strategic points

on Lookout Mountain battlefield. Old veterans, both those who wore the Federal Blue and those who wore the Confederate Gray, love to wander through these historic fields, where they faced death so many years ago, and exchange reminiscences of the times when they were "making history." Our views in this series are magnificent and embrace pictures of points of interest in the park, monuments, commemorative tablets and cannon, while those of Lookout Mountain cannot be excelled as illustrations of the beauties of this historic region. About 200 subjects.

No. 70. **America Illustrated: The Atlantic Coast Series.** The views in this series illustrate the fine scenery of the Atlantic Coast States of Massachusetts, New York, Pennsylvania and Florida. The Pennsylvania views embrace splendid pictures of the beautiful Delaware Water Gap region and of the district of the great Johnstown Flood of 1888. The pictures are of the finest quality and are of absorbing interest.

No. 72. **The Old World Illustrated: England, Ireland and the Dark Continent.** In this series will be found pictures of surpassing interest, illustrating the beauties and places of interest of historic old England, with her ancient castles; of old Ireland and her Lakes of Killarney; of Africa, the vast dark continent with her storied temples and crumbling ruins. A splendid collection.

No. 74. **The Old World Illustrated: Norway and Sweden.** This series is replete with fine photographs illustrating the beauties of scenery, places of interest and customs of the great Scandinavian countries. An exceptionally fine collection.

No. 76. **The Old World Illustrated: Germany and Belgium.** In this series the magnificent scenery of the Fatherland and of Belgium are shown. Their Rivers, Lakes, Mountains and ancient

STEREOSCOPIC VIEWS—Continued.

Castles. The cities of Berlin and Antwerp pass in review, while many of the views are devoted to illustrating the every-day life and quaint customs of the inhabitants of these countries.

No. 78. **The Old World Illustrated: France, Italy and Greece.** This fine series is a pictorial panorama of these historically interesting and beautiful countries. The great cities of Paris, Rome and Athens are well illustrated and a study of the pictures will well repay the observer interested in the ancient traditions and singular customs of these countries.

No. 80. **The Old World Illustrated: Switzerland and Monaco.** The Republic of Switzerland and the little Principality of Monaco are said to be the most beautiful countries of the World, and an inspection of the views constituting this splendid series will indicate that there certainly can be no scenery more beautiful than is found therein. In the Monaco pictures many are devoted to illustrating the great gambling places of Monte Carlo.

No. 82. **Isles of the Ocean.** This series embraces fine photographs of the beautiful and characteristic scenery of the Islands of the Atlantic and Pacific Oceans, Cuba, Australia, New Zealand, etc., their harbors, fortifications, natives, etc., and is calculated to give one a correct idea of the novel character(homes and customs of these lands. A most interesting series.

No. 84. **Military, Naval and Historical: Marine Views and Vessels.** Under this head are classed events and incidents of interest, from the earliest age of the world to the present day, naval and military movements, explorations, battles by land and sea, including the war of the Rebellion, the Spanish-American, American-Filipino and British-Boer wars.

Fine pictures of United States and foreign warships, ocean steamers, river craft, Columbian Naval Review

scenes, marine views and a very interesting series of the "Wreck of the Maine" pictures. A most interesting and instructive collection.

No. 86. **Groups: Comic and Genre; Child Life and Child Studies.** This is the finest collection of group views in existence and depicts social life in all its comic and serious aspects. The family circle is invaded and many of the pictures are those of domestic scenes of decidedly startling and amusing character. The groups are all made from life, trained models having been employed to impersonate the characters. The child studies series, also made from life, depict child life in all its charming innocence, simplicity and beauty. About 200 subjects.

No. 88. **Ethnological Series: The Races of Men.** (American Indians, Cossacks, Mexicans, etc.). This series is an extremely interesting one to the student of ethnology, types of the various races being shown. Particular attention has been given to the pictures of American Indians, our collection of these being unsurpassed. The Indian is pictured afoot and on horseback, in war paint and in the dress of peace, and the series well illustrates the character and customs of this fast vanishing race of aborigines. The series embraces about 100 subjects.

No. 90. **Art, Statuary, Zoological, Etc. Miscellaneous.** A superb collection of views. In this class are found copies of celebrated paintings and works of art. The famous creations of marble and of bronze, both of ancient and modern times, sculptured figures and groups of the renaissance; the masterpieces of to-day, are all well and beautifully reproduced and offer a feast to the lover of art. Scientific objects, modern implements, weapons of warfare, relics, anatomical and other specimens, curiosities of nature and art, animals, fish, reptiles, birds, and many other subjects of general interest. No collection complete without these.

Price, Tourists' Series Views.

Plain, uncolored—	
Each	\$0.10
Per dozen	1.00
Artistically and correctly colored in our best style—	
Each	\$0.15
Per dozen	1.50
Postage, 8c per dozen.	

Electrical Stage Appliances.

We are sole manufacturers of the J. C. Mayrhofer's Electric stage lighting system and electro-mechanical and optical light effects.

J. C. Mayrhofer is the acknowledged pioneer in this modern branch of stage lighting and his patents under which we manufacture said appliances cover the principal features of the system.

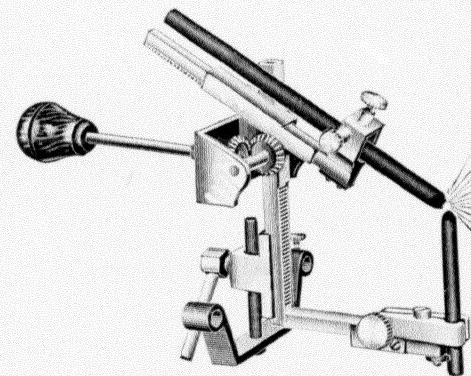
All apparatus is of the highest grade in material and workmanship, and built in full accordance with the latest rules and regulations of the National Board of Fire Underwriters.

The Mayrhofer system of stage light effects, theatrical illumination, border lights, dimmers, etc., has been in use in the Metropolitan Opera House at New York for some years. The Mayrhofer switchboard, reconstructed in duplicate in this house, at a cost of \$10,000 for the board alone, is the most elaborate in the country, and at the same time the simplest, most reliable and safest.

All the elaborate light effects called for by the Grand Operas produced by Grau in recent years were devised by Mr. Mayrhofer according to his system. His beautiful rainbow, moon, rising sun, snow and other effects mark the highest development in stage lighting science.

No. 145. The Mayrhofer 60-degree Hand-feed Arc Lamp.

PRICE, \$30.00.



No. 145. 60-degree Arc Lamp.

This lamp is designed for use on direct or alternating current, and is, therefore, specially fitted for use on the road. By turning a mechanical device the feeding of the carbons is effected in such a way that the arc is always maintained directly in the focus of the reflector.

The Mayrhofer 60 degree lamp is so constructed that the maximum amount of light is projected forward, and has a candle power capacity of 2,500 to 8,000. It is constructed according to the most scientific ideas and is the only lamp of its kind on the market. It is well made, strong, and will withstand roughest usage. It is not a cheap lamp, but the best.

THIS LAMP IS USED EXCLUSIVELY FOR EFFECT LIGHTING IN THE METROPOLITAN OPERA HOUSE, NEW YORK.

No. 146. The "M. K." Rheostat, or Resistance Coil.

Mayrhofer Patent No. 552,495, Dec. 31, 1895.

PRICE, \$8.00.

The most practicable rheostat on the market; fully covered by patent granted Dec. 31, 1895. The United States District Court has granted a permanent injunction against one pirate for infringing upon the Mayrhofer patents, and other infringers are warned to desist under penalty of prosecution.

FEATURES OF THE "M. K." RHEOSTAT.

THIS STANDARD COIL IS MADE of non-combustible material and constructed to insure perfect ventilation. Size: Height, 6 $\frac{1}{4}$ inches; triangle, 9x9x9.

THE RESISTANCE WIRE IS RUST PROOF and does not deteriorate with the severest use; hence it is practically impossible to burn out one of these rheostats.

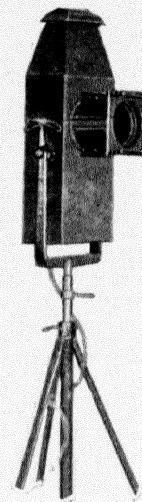
THE CUT SHOWS THE CONSTRUCTION of the standard theatre arc light rheostat, for 110-120 volts direct current, 52-104 alternating, constant load currents.

THIS COIL IS BY FAR THE SIMPLEST and most compact resistance in the market.

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No. 146. The "M. K." Rheostat.



Single Condenser Arc Lamp or "Chaser."

PRICE, COMPLETE, \$55.00.

This instrument is adapted for projecting a beam of light on stationary or moving objects. It is compact, strong and simple; furnished complete with hand fed arc lamp, color box, lens carrier, adjustable case stand, "M. K." resistance coil and other necessary trimmings, including a Graduator, to change colors.

THE STANDARD ARC SCIOPTICON.

NEW 1902 MODEL. PRICE, \$65.00.

This apparatus, as shown in the accompanying engraving, is constructed on scientific principles. Every recent improvement has been added and no pains or expense have been spared to make this a perfect instrument as regards simplicity, workmanship, durability and moderate cost. Owing to the simplicity of its construction the instrument is easily operated and controlled in the NUMBERLESS EFFECTS which can be obtained from it.

The Sciopticon is built entirely of metal, and its construction is such as to insure great durability, and it is therefore especially adapted for the road.

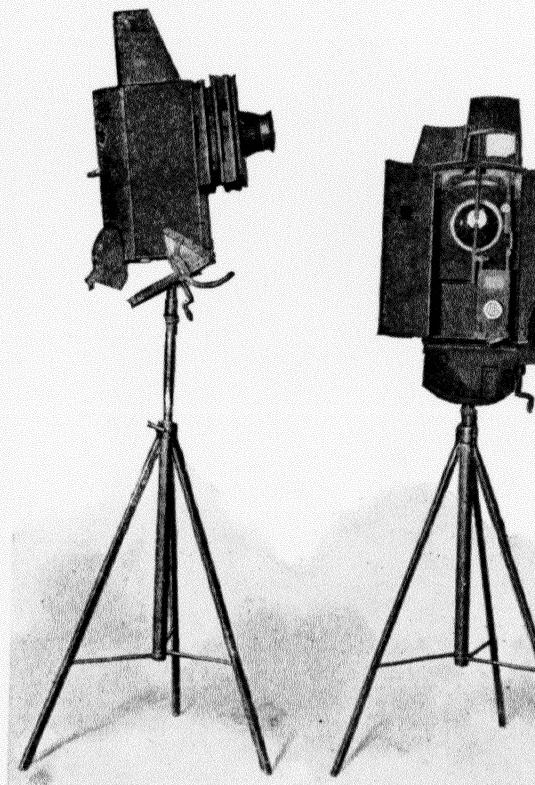
All the mechanical devices to manipulate it and obtain the various effects are designed so as to be perfectly rigid, and in operating the effects no vibration is perceptible.

The objective Lenses used in the Sciopticon are perfectly achromatic and of finest quality.

The Condensing Lenses used in the Sciopticon are made of Jena glass, perfectly ground, with finest finish, and have a diameter of 5 $\frac{1}{2}$ inches, the largest of their kind used in this class of work.

The construction of the case is such as to readily allow the different changes from an open box light to a reflector or simple lens light, thus making the Sciopticon practically a UNIVERSAL LAMP for any stage arc lighting, to be substituted for calciums or to be used as an effect arc lamp.

Our 1902 model 90 degree lamp arc sciopticon is constructed with 6-inch square effect slide openings.



FEATURES OF THE "M. K." RHEOSTAT.—Continued.

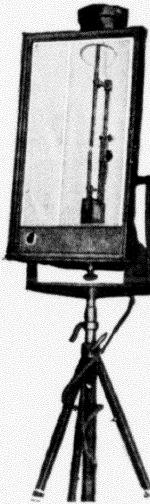
IT IS THE STANDARD FOR PHOTOGRAPHIC WORK, printing, etc., and is used in nearly all electrically equipped theatres.

A BATTERY OF THE STANDARD "M. K." COILS can be connected in series or multiple series, suitable for any voltage or amperage either direct or alternating current. For 220 volts use two M. K. rheostats in series, or one double M. K. coil, height 12 inches. Price for 220 volt rheostat, \$15.50.

A DIMMING DEVICE can be added to any of these rheostats at a cost of \$5.00 extra.

WE GUARANTEE THEM TO BE ELECTRICALLY and mechanically perfect and superior to any other rheostat of this type.

The Mayrhofer patent M. K. triangular resistance coil is the most popular in use to-day; over 2,000 are in active service and giving the best of satisfaction. Infringements of patent rights will be prosecuted. Well adapted also for use with the kinetoscope, stereopticon, etc.



Olivette or Open Box Arc Lamp.

PRICE, \$55.00.

The Olivette consists of the hand-feed Arc Lamp, a sheet-iron case with color slides, a wrought-iron stand with a device by means of which the light may be thrown in any direction. The resistance coil is furnished with each lamp.

The Open Box Arc Lamp is equally serviceable for direct and alternating currents of ten to twenty amperes. An important feature of this lamp is the fact that it illuminates an area of about forty feet.

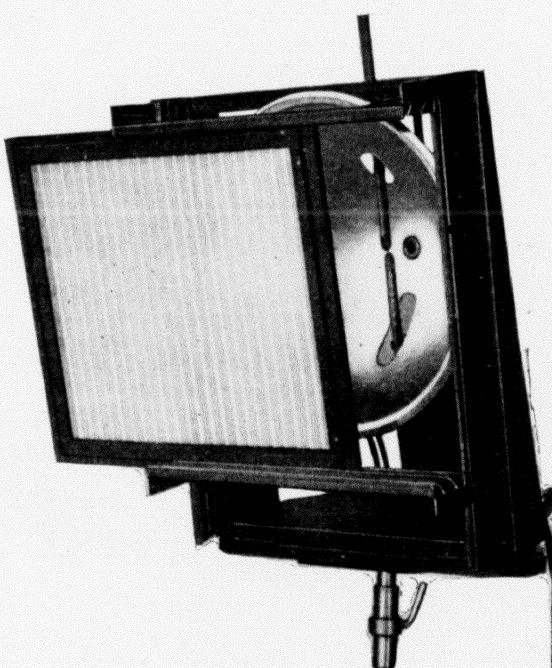
Gallery Reflector Arc Lamp.

PRICE,
COMPLETE, \$55.00.

This powerful Arc Lamp, ranging from 8,000 to 10,000 candle power, is provided with a 16-inch parabolic silver or glass reflector and illuminates the entire stage in a broad silvery cone.

This instrument consists of a hand-feed Arc Lamp, Reflector, Adjustable Mountings, Double Color Slides, Resistance Coil and a five-color Graduator.

Note:—The reflectors are made in several designs to suit requirements, with tubular or side blenders, etc.



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The Mayrhofer Electro-Mechanical and Optical Light Effects.

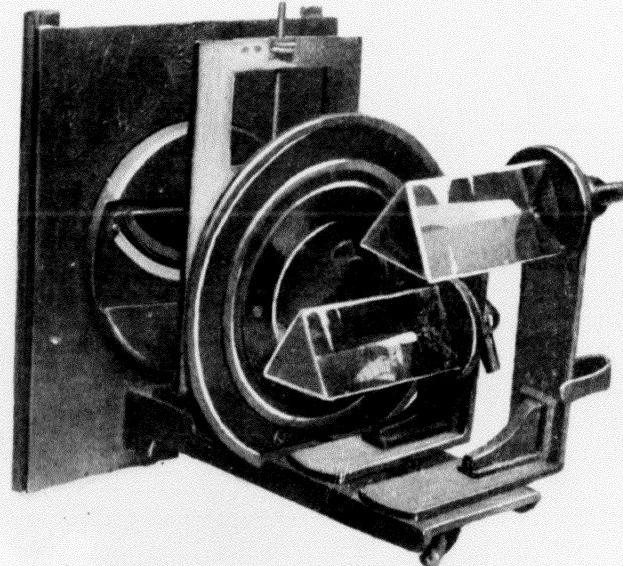
Numberless effects can be produced with the Arc Sciopticon previously described, among them the following, each requiring additional apparatus at prices specified:

1. The Sun, rising and setting.....	\$15.00	9. Rainbow	135.00
2. Moon, rising and setting.....	15.00	10. Snow storm, 2 machines.....	85.00
3. Eclipse of sun or moon.....	20.00	11. Ocean waves	40.00
4. Sunrise	15.00	12. Moving clouds	50.00
5. Water ripple	40.00	13. Moving clouds with morning glow	55.00
6. Waterfall	50.00	14. Moving clouds with moon	60.00
7. Rain	50.00	15. Storm clouds	50.00
8. Snow	\$50.00		

THE RAINBOW.

PRICE, \$135.00.

This wonderful optical instrument, the result of several years' experimenting, reproduces one of the greatest phenomena of nature in such a realistic manner that the spectator forgets he is beholding only an image. No painted slides or stereopticon methods are employed. The rays of a powerful arc of 8,000 candle power passing through adjustable double prisms are diverted, and by an adjustable mechanical device a partial, primary or secondary rainbow can be produced.



Used by: Maurice Grau in Wagner's opera, "Rheingold"; W. Savage, English Opera Co.; Jacob Litt's "Caleb West"; The Storm scene in Manila; "Wonders of America," "Evolution of the Earth," Electrical Society of New York for scientific elec. light demonstrations.

Grand Operas, Dramas, Spectacular Productions.

Fitted out with the Electrical Lighting System of J. C. Mayrhofer.

Klaw-Erlangers—Brownies Company.
Henderson's—Black Crook.
Augustus Pitou—Across the Potomac
Company, Cumberland 61.
Gunner's Mate.
Chauncey Olcott's Company.
Jacob Litt's—Shaft No. 2, United States
and England companies.
Caleb West.
Liebler & Co.—J. O'Neill's Monte Christo
Company.

Christian Company, 1900-01.
Lost River Company.
Denman Thompson—Old Homestead Com-
panies.
Sunshine of Paradise Alley Company.
Songs Illustrated and Illuminated Co.
Urania—A Trip to the Moon.
From Chaos to Man.
Wonders of America.
Evolution of the Earth.
E. E. Rice—Evangeline Company.
1492 Company.

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Grand Operas, Dramas, Spectacular Productions—Cont'd.

W. H. Savage—English Opera Company.
Lorely Company.
Maurice Grau—Grand Opera Co., on tour.
Walter Wamsch—German Opera Co.
Sarah Bernhardt—Coquelin, L'Aiglon, La
Tosca, Etc.
Sorrows of Satan.
Rory of the Hill.

Electric Fountain.
Thunder Storm.
Rose Show miniature floral effects Waldorf-Astoria hotel.
Decorative Illumination at the Second National Electrical Exhibition.
Miniature Electric Scenic Theatre.

Principel Theaters in the United States Equipped Fully or Partly with J. C. Mayrhofer's Stage Lighting System.

KLEINE OPTICAL CO., Selling Agents.

Metropolitan Opera House, New York.
Grand Opera House, New York.
Academy of Music, New York.
American Theatre, New York.
Broadway Theatre, New York.
Carnegie Music Hall, New York.
Columbus Theatre, New York.
Daly's Theatre, New York.
Dotworth Academy, New York.
Herald Square Theatre, New York.
Holmes Star Theatre, Brooklyn.
Montauk Theatre, Brooklyn.
Keith Union Square Theatre, New York.
Madison Square Theatre, New York.
Miner's Eighth Ave. Theatre, New York.

New York Theatre, New York.
Old Star Theatre, New York.
People's Theatre, New York.
Fourteenth Street Theatre, New York.
Waldorf-Astoria Hotel, New York.
St. Francis Xavier College, New York.
National Theatre, Philadelphia.
Manhattan Beach Theatre, Long Island.
Wonderland Theatre, New Haven.
Castle Square Theatre, Boston.
Valentine Theatre, Toledo, Ohio.
Academy of Music, Jersey City.
George Gould Georgian Court, Lakewood,
N. J.
Crescent Theatre, New Orleans, La.

The celebrated Mr. Harder, stage manager of the Royal Wagner Theatre in Bayreuth, who was engaged for the production of American Grand Opera by Walter Damrosch, stated that the Metropolitan Opera House of New York is equipped with the finest electrical stage effects that he has ever seen. This is the Mayrhofer system. Mr. Harder purchased \$2,000 worth of Mayrhofer apparatus for the Royal Opera House in Berlin and the Bayreuth Wagner Theatre.

It is a well-known fact that this Wagner Theatre has the best scenically equipped stage in the world.

IF YOU MEET
A SUCCESSFUL MOVING PICTURE EXHIBITOR ON THE
ROAD, WHO IS MAKING MONEY AND IS PLEASED
WITH HIS OUTFIT, YOU WILL FIND THAT HE IS
USING THE
Edison Projecting Kinetoscope
Edison Moving Picture Films

The following is from the Chicago American March 4, 1902.

PICTURES MADE OF THE PRINCE

Every Action Caught by Photography as He Lays Wreath at Lincoln Statue.

Kinetoscope pictures were taken of the scene of the Lincoln Monument ceremonial to-day for exhibition in Germany.

Every action of the Prince, including his laying of the wreath at the foot of the monument of the American martyr, was caught by the lightning-like flashes of the photograph machine. Scores of prints are to be made from the negatives, some of which are to go abroad for exhibition, and the United States and German Governments are to be presented each with a set.

The arrangements for the taking of the pictures were in charge of the Kleine Optical Company, the offices of which are in the Champlain Building. A small tower was erected a few yards from the monument and the scene of the ceremonial and the moving throng was perpetuated from the top of this tower.

Within a very few weeks the countrymen of Prince Henry will have an opportunity to observe the scenes in which the royal visitor participated during his travels in America, as the Lincoln Park ceremonial is only one of the affairs of which kinetoscope pictures have been taken. The pictures will give Emperor William an accurate idea of the hospitality America has shown his royal brother.

Prince Henry is much interested in moving picture photographs. James H. White, Mr. Edison's representative, to whom has been delegated the task of photographing into moving pictures the various ceremonies in which the Prince has participated, has been practically attached to the royal suite during the guest's trip about the country.

When Prince Henry was banqueted by the "captains of industry" in New York he made the acquaintance of Mr. Edison. He was very much interested with the personality of the great inventor and engaged him in conversation concerning several of his inventions that are of world-wide interest.

Mr. White is armed with exclusive permission from the United States Government to photograph the various incidents during the trip of the royal visitor. Among the pictures his camera has caught are those showing Prince Henry abroad the Kronprinz Wilhelm arriving in New York, Prince Henry arriving

in Washington, Prince Henry visiting the German Embassy, the christening and launching of the Kaiser's yacht Meteor, and numerous other scenes.

At the time of the launching the camera was placed in a position ten feet from Prince Henry and Miss Alice Roosevelt. The entire ceremony was taken and the plates are now being developed. The pictures will be exhibited in a Chicago theater this week.

One set of all pictures taken during Prince Henry's trip will be placed in the national archives at Washington. The historical value of these reproductions has been recognized by the government authorities and America will have the kinetoscope pictures of its entertainment to Prince Henry for all time to come.

About Endorsements.

It has been a very common practice among business houses in many lines that cater to the trade of people living at a distance to issue copies of letters of endorsement from customers, who have presumably bought goods such as the inquirer contemplates purchasing.

A little investigation on the part of purchasers will show that dealers in inferior grades of goods seem to have as little trouble in obtaining endorsements of their wares as those who sell only the best made and most meritorious.

For this reason endorsements have fallen somewhat into discredit, more particularly as the inquirer has no means of sifting the genuine from the fraudulent.

We have seen copies of letters supposed to have been written to certain firms engaged in the sale of stereopticons, moving picture machines, etc., which are known to be of the poorest grade, stating that the writer has bought one of these instruments and is enthusiastic in his approval. The value of these endorsements can be estimated when it is stated that we know of four different concerns that are issuing the same letters, written by the same people, in the same words of approval of instruments that no self-respecting lecturer would use.

During the many years in which we have manufactured and sold stereopticons, magic lanterns, moving picture machines, etc., it has been a matter of pride with us that rarely if ever have any of our customers transferred their patronage to another house after having once dealt with us, and we have on file many complimentary letters from patrons who have bought of us for years.

Those that may wish to see copies of some of these letters will receive them on application.

If the recipient of this catalogue contemplates the purchase of a Stereopticon, Magic lantern or Moving Picture Machine, and remains in doubt either because he lacks confidence in his judgment or hesitates in making a choice between our machines and those of some other make, we will be pleased to have him write us, stating his views and we will give any information or advice in our power.

IF IN DOUBT, WRITE US.

Our many years' experience in the manufacture of Magic Lanterns, Views, etc., which have been our specialty, give us a claim on the consideration of purchasers above those of firms that handle these scientific instruments as they do shoes, hats, buggies, clothing and other miscellaneous articles, as so much merchandise which they understand less than most of the customers to whom they sell them.

We recognize that it is at times difficult for the purchaser of a stereopticon or magic lantern to decide which is the best of the various makes, as printer's ink is patient and the poorest instruments are often described by dealers as the finest with superlative excellences. Attractive illustrations can be drawn from apparatus which is made of cheap and defective material; and no illustration in a catalogue can show the difference between the finest and the poorest quality of lenses.

The customer should be guided by the fact that no legitimate business house can afford to sell at a loss, or at cost of material; and any offers of this nature should be viewed with suspicion. It need not be pointed out to an intelligent buyer that no dealer can afford to sell a \$100.00 article for \$25.00. A man may pay \$40.00 for a suit of clothes or he may pay \$7.00—each is a suit of clothes, but there is a difference in quality of material, workmanship and lasting power; this applies to magic lanterns and stereopticons as well.

The safest course for the buyer of projecting instruments and supplies is to deal with a firm of recognized standing, known specialists in this line, who have both the facilities and the knowledge requisite for the production of up-to-date meritorious goods.

There are only five such firms in the United States. There are, in addition, possibly fifty concerns, almost all of which have sprung up within the past three years, that deal in projecting instruments and supplies. A few of these draw their goods from the manufacturers of known reputation, but the majority have attempted to place cheap instruments on the market that are dear at any price. They employ cheap objectives and condensing lenses, instead of the standard makes, and economize in the other material used, regardless of the harmful effect upon the working capacity of the instrument. Some offer spurious endorsements of their goods from alleged users, which will not bear investigation.

**GOOD WORK REQUIRES
GOOD APPARATUS.**

the exhibition business entirely than to purchase an outfit that is bound to disappoint his audience, himself, and end in loss, as well as to create prejudice against the exhibition business.

It does not follow that all outfits must be expensive; we repeat, the quality depends upon the work required.

EDISON MOVING PICTURE MACHINES AND APPARATUS ARE THE BEST.

but in pursuance of our policy to offer the best, whether our own make or others, we sell the Edison moving picture product exclusively.

We have been appointed General Western Selling Agents, wholesale and retail, by the Edison Mfg. Co., and confine our sales of moving picture apparatus to the Edison Projecting Kinetoscope and Edison Films.

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With regard to Moving Picture Apparatus, there is but one machine on the market that should be considered. The Edison Projecting Kinetoscope and Edison Films have the highest average merit of all goods of this nature upon the market. Other makes offer the dealer a higher percentage of profit

When exhibitors of moving pictures employ an inadequate and cheap outfit, they enter into competition with a host of other exhibitors who also have inefficient machines and films; there are many of these on the market and there is nothing to distinguish the one from the other; which lessens the exhibitor's chances of success enormously.

THE CHEAPER THE OUTFIT THE HARDER THE COMPETITION FOR THE EXHIBITOR.

An exhibitor who employs an Edison Machine and Edison Films at once places himself above the competition of the cheaper class. He will easily obtain a hearing in trying to make first-class dates; he will attract audiences. The man with the poor outfit has to overcome prejudice and often meets with no consideration; the exhibitor with the Edison Kinetoscope and Films has won from the beginning by the magic of Mr. Edison's name, and the known solid merits of the instrument and views.

To the traveling exhibitor with Stereopticon or Moving Picture Machine, the question of advertising his business is an all important one. It is not sufficient to purchase a first-class outfit. Success, both financial and artistic, depends upon a liberal attendance at the lectures. To procure this should be the constant effort of the entertainer.

How to obtain large audiences, the methods to be employed, are problems that must be variously solved, according to the kind of audiences that it is desired to attract, the views that are to be shown, etc.

Primarily, the one form of advertising that is always apropos is the use of posters. These are large sheets, preferably containing an illustration of some scene in the lecture. We have adopted as a standard size 18x24 inches, which will arrest attention, particularly when it shows boldly a view that illustrates the lecture. They should be hung in store windows, fastened to fences, telegraph poles, etc., whenever opportunity offers, and where the public will see them.

In addition to these, liberal use of handbills distributed at people's houses or places of public congregation, will be helpful. We use the 6x9 inch size.

Other methods of attracting attention will occur to men of originality. They are many and various. The endorsement of leading men and women in any given locality can usually be obtained for a meritorious outfit, and is valuable. An attractive program should be issued, and if distributed before the lecture will arouse interest.

Music when added to a magic lantern lecture increases its attractiveness. The Phonograph with a dozen or two records has made this part of an entertainment simple. It is of great value before opening, during an intermission, and after a lecture.

The newspapers should announce the coming of the lecturer. He should procure notices free if possible, pay for them if he must, but get them in any case. A few notices in the "local" column of the papers will be of greater value than a large "display" advertisement.

Whenever you meet a money-making moving picture outfit on the road, you will find that the exhibitor is using an Edison Kinetoscope and Edison Films.

Correspondents occasionally make propositions to us looking toward our furnishing an outfit with either stereopticon views or moving pictures to be used by them and the profits to be divided between themselves and this company. We never enter into arrangements of this sort for obvious reasons. As we are manufacturers of and dealers in instruments, views, etc., and not exhibitors, it would be an interference with our customers if we were to enter into the exhibiting business. It would be impossible for us to follow up outfits sent out in this way, which would necessarily be scattered over a wide extent of territory.

For similar reasons we cannot ship outfits on consignment to be tried on the road for a lengthy period and subject to return.

An investigator considering the business chances before going into the exhibition business frequently asks what assurance of success we can give him. In answer to this question, it can only be said that the exhibition business must be conducted along business lines and much depends upon the personality of the man that purchases the outfit. The exhibition business requires energy, tact, and readiness to seize opportunities such as would be called for in any other venture. An intelligent man with these characteristics undoubtedly has excellent chances of a successful career as an exhibitor.

RANDOM REMARKS.

Day after day we receive the old familiar request for prices of second-hand magic lanterns, moving picture machines, and films; and day after day we write to correspondents the well-worn story of false economy and energy wasted in purchasing instruments that appear cheap, because they have been used and are being sold "below cost." We state that we sell new goods exclusively; but with a persistence worthy of a better cause the eager bargain hunter goes the rounds until he finds elsewhere his "second-hand outfit, ridiculously cheap."

Then follows the inevitable; we receive a letter in the course of time, stating that this extraordinary outfit looks all right but does not give the results which the buyer rather thinks he ought to receive. He admits that he is not posted, but thinks that the parts are not mates, the lenses seem to be misfits, the size of the picture on the curtain is too large or too small, the burner does not seem to center in the machine; there seems to be part of the objective missing; a dozen other faults have developed, and won't we please advise him what it will cost to put his outfit in shape?

If the victim has found a bargain in a moving picture machine and films, they are probably of the vintage of 1896 or 1897; his apparatus is a film eating monster; his stock of films is probably scratched into such a shape that there is rain in every picture, even if the sun shines; the edges are torn and the film needs adjusting when in motion at every five or ten feet of its length.

We would say to these gentlemen bargain hunters that up to date machines and views of standard makes (we are not speaking of our own exclusively) do not go begging for a buyer if the owner wishes to sell; nor does he have to cut the heart out of his price to find a purchaser. There are very few of these in the market at any time; and when there are any it is not the inexperienced purchaser who gets them.

An instance in point: We received a letter some months ago from an inquirer asking for a second-hand moving picture machine and films, whom we could not accommodate. Later he wrote that he had found an Edison Kinetoscope and latest films at a bargain and had bought, but while he knew that it was all right it did not seem to be satisfactory; he had shipped it to us for examination, prepaid. Would we kindly look it over, send our bill and advise him?

The machine arrived in due course; it was an unspeakable affair, not an Edison machine at all, but a fraction of a Magniscope built in the fall of 1896, which had evidently had a pitiful career and shed tears of rust at every pore: the poor cripple had had most of itself replaced at various times by blacksmiths and carpenters.

The assortment of films that accompanied the machine would have brought tears to the eyes of a mummy. The subjects we recognized; they were selling actively in the fall of 1896, when machines were worth \$500 per week and ate a film each night. An exhibitor who knew his business would not have carried them away at 3 cents each. They appeared as if passed through a threshing machine.

The buyer of this machine left it on our hands; we have it still; its venerable bones are laid away with other junk in our store room. Storage charges are accumulating. It will soon be burned if not sent for. And still the bargain hunter hunts, seeking to purchase \$5 gold pieces at 30c each. With a persistence worthy of a nobler cause he uses time, postage stamps, paper and energy in seeking the impossible, and he will probably continue to do so for all time.

To the inquirer who is thinking of going into the exhibiting business, either with magic lantern or moving picture machine, we say: Buy your goods from a responsible dealer who has a reputation to maintain; one who will stand ready to answer any complaints that you may make and rectify his errors, if there are any. If you do not care to invest sufficient money to procure an outfit that will do you justice and reflect credit on the dealer, or if you cannot afford to do so, stay out of it; by all means do not invite failure in advance, by using cast-off goods. Your outfit is a tool, a machine which is in competition with other machines and must give results.

We spend money in general advertising to bring our goods before the notice of buyers; in printing catalogues to explain fully what it is that we have to sell; in giving detailed information through the mails; but we have always considered our regular customers, who have dealt with us for years, and whose good word is given freely, to be our best advertisement. We refer to a long list of old-time lecturers and exhibitors: Dr. and Mrs. Crary, Mr. Kaiser, Rev. G. B. Swartz, Mr. Mapes (Stoddard's lanternist during the many years of his greatness in the lecture field), to Mr. George Spoor (owner of ten moving picture outfits showing in the Chicago Opera House, the Olympic, the Haymarket and others of the best vaudeville theaters in the country); to Simpson and Miller, Joe Howard, The Silvers, F. L. Langley, Beatty Brothers, etc., to whom and many others too numerous to mention we pay our compliments and give thanks.

Mr. Spoor has exhibited moving pictures since the old magniscope was first put upon the market in 1896; when films were all from 50 to 65 feet in length and cost \$20 each; when theatres paid fabulous prices for moving picture shows. He has probably the largest collection of films of any exhibitor in the world, embracing the entire list of the Edison factory, to which is added every new film that the company issues, for which we have his standing order, costing him \$5,000 per year. Neither Mr. Spoor nor any other exhibitor of experience buys second-hand films or machines.

We guarantee to our customers that every article bought of us is absolutely new, has never been used and never before been sold. With such an iron-clad guarantee, it is manifestly impossible for us to buy goods from exhibitors, such as are sometimes offered us, no matter what their condition.

For the same reason we do not project new films out of stock in our dark room. If a film were projected for one customer, it would be required for all that wish it, with the result that the films would be under suspicion when sent to customers who order through the mails. We demonstrate in our dark room with films laid aside for the purpose. After new films are sold, we will exhibit them to an unlimited extent for the buyer if he desires it.

Customers who call at our store in person will receive instruction in the operation of any instrument that they wish to purchase. Our facilities are extended free of charge.

Sample Letter of Inquiry, with Answers.

No. 1. HOW MANY MOVING PICTURE FILMS AND PHONOGRAPH RECORDS SHOULD I BUY?

Answer: It is difficult to advise you as to the number of films and records that you should purchase, as this would depend upon the kind of place in which you will exhibit, as well as the way in which you will conduct the business. The minimum number of films would be 4 or 5. These with 50 stereopticon views and about 12 phonograph records would be a minimum number. A liberal number would be 15 films, 50 foot lengths or longer, and two dozen records. As to the titles to be selected, we would recommend among the records a good assortment and variety, including popular songs, quartettes, solos, instrumental selections by the cornet, violin, band music, etc. Among films we recommend those that are popular and up-to-date, taken from the latest Edison list. As a general rule those films that are called mystic or supernatural, comics and others with rapid action are the most popular. One or more railroad scenes, galloping horses, fire engines and other films in which there is plenty of action should be included.

No. 2. WOULD \$100 COVER THE VALUE OF FILMS, RECORDS AND SLIDES FOR ONE NIGHT?

Answer: One hundred dollars would purchase a fair assortment of films, records and stereopticon views for one night's use. This amount would approximately cover the following assortment: Twelve films at \$6.00 each, 50 foot lengths; 12 Edison concert records and 60 stereopticon views.

No. 3. HOW MANY PEOPLE WOULD IT REQUIRE TO RUN SUCH A SHOW?

Answer: One man and one assistant, who may be a boy, could easily conduct an entertainment in the proper manner after a few hours' practice.

No. 4. WHAT SIZE TOWN PAYS BEST?

Answer: We would advise visiting towns whose population runs from 1,000 to 20,000.

No. 5. WHAT SHOULD THE PRICE OF ADMISSION BE?

Answer: The price of admission would vary, according to the hall in which you would show, as well as the class of people to whom you are catering. A popular price of admission would be 15c for children and 25c for adults. In case you make arrangements with a church and work on a percentage basis, which would help you dispose of a large number of tickets—the price might be 25c and 50c, although we are in favor of the lower price because it will bring larger crowds, which is more desirable.

No. 6. WHAT ARE THE DAILY EXPENSES?

Answer: The necessary expense daily, excluding transportation charges which would be indefinite and depend upon the distance traveled and the frequency with which you change, would be very little.

GLOSSARY

Film Mender, or Film Joiner—A device used for properly gauging the film when joining two ends, that the perforations may continue at equal distances, and to exert pressure while the film glue is drying.

Hydro Carbon Light—An illuminant produced by means of kerosene under pressure which vaporizes upon contact with a heated surface, and when ignited produces incandescence in a Welsbach mantle.

Illuminant—The form of light employed in a projection instrument to illuminate the view. Those in use vary greatly in intensity in the following order: Oil (kerosene), employed with one or more wicks; Welsbach mantle, with house gas; kerosene under pressure for vaporization (called Hydro Carbon Light) used with Welsbach mantle; acetylene gas; incandescent electric lamp, calcium light, or lime light; are electric.

Kinetoscope, projecting—A trade term adopted by Thomas A. Edison to designate an instrument which receives a moving picture film and by its mechanism gives it rapid motion, projecting the pictures upon the curtain in such a way as to produce the effect of continuous motion upon the eye.

Key, Dissolving—A term, which when used in connection with a stereopticon, indicates an appliance to which lime light or acetylene gases are conducted from generator, gas tanks or other storage bags; it serves to direct the flow of the gases at will into one or the other magic lantern of the stereopticon. A high pressure key is used when calcium light gases are received from tanks in which they have been stored under high pressure. A low pressure key is used when gases are made by the exhibitor and held under low pressure.

Lime Light—See Calcium.

Limes, or Lime Cylinders—A stick of lime to be placed in a cup which forms part of the lime light burner.

If you purchase a gas making outfit for calcium light you would require for chemicals, supplies, etc., about 60c for each exhibition; carriage for apparatus to and from depot at each stop about 50c. An assistant could probably be found in each town as he would work under your directions and would require no special knowledge of the apparatus. His expense might vary from nothing to \$1.00.

No. 7. IS PRINTED ADVERTISING MATTER COSTLY?

Answer: We are firm believers in good printing and have gone to considerable expense in devising cuts and posters to accompany our outfits, our customers being charged but a small part of the cost as we throw in a large part free of charge.

No. 8. WHAT IS THE AVERAGE LIFE OF MOVING PICTURE MACHINES AND FILMS?

Answer: The Edison Kinetoscope is not affected to any extent by wear and tear. It is good for years unless subjected to accident. With proper handling the life of a film for moving pictures should be from two to three years with the Edison machine. The care with which these are handled has a great deal to do with the lasting power.

No. 9. IF I SHOULD WANT TO SELL MY OUTFIT, WHAT WOULD I BE LIKELY TO GET FOR IT? CAN YOU SELL ME A SECOND-HAND OUTFIT?

Answer: Judging from the fact that rarely if ever are we offered second-hand Kinetoscopes, Films or Concert Talking Machines, we would say that none of these machines ever go begging for the want of a purchaser. Dealers have to uphold the list prices very strictly. We have many orders for second-hand machines of this nature, which we do not fill, as we handle only new goods. In this connection we would also point out to you that it is very much easier to sell first-class instruments at second-hand at good prices than it is to dispose of cheap machines at any price.

No. 10. WOULD I HAVE TO COME TO CHICAGO TO BE INSTRUCTED?

Answer: With regard to your coming here to see the instruments, we would be pleased to have you call on us if you wish to go to the expense of the journey and devote the time. It is not necessary, however, as we often send these machines out to customers who are not posted, have no previous instructions, and who have no difficulty in learning how to operate them. Our advice would be to add the cost of the trip to the outfit in films and records. As both moving picture machine and films would be of standard make, and as we guarantee that they are the latest product of the Edison factory for which we are authorized selling agents, you will at once see that so far as these are concerned it will make absolutely no difference whether you buy in person or by mail.

Acetylene—A gas which is generated by the contact of water with calcic carbide; it is cheap, simple and practical for stereopticon work.

Condensers, or Condensing Lenses—The large lenses, usually two in number, 4 or 4½ inches in diameter; placed in a magic lantern in front of the illuminant and behind the views. Condensers vary in focus from 6 to 8 inches and the diameter may be less or greater than the figures given, ranging in extreme cases from 3 to 8 inches; at times three condensers are employed.

The diameter of the condenser must be greater than the diagonal of the slide which it illuminates.

Calcium, or Lime Light—An illuminant produced by the mixture of oxygen and hydrogen gases, or oxygen with the vapor of ether or gasoline, which are under pressure and burn against a lime cylinder, producing incandescence.

Carrier (Slide Carrier)—A frame, usually made of wood, constructed to hold a stereopticon view in proper position in the instrument.

Carbide (Calcic Carbide)—A chemical used to generate acetylene gas, which is liberated immediately upon contact of the chemical with water.

Curtain—Some white material, such as sheeting, cloth, etc., upon which is projected the view by a stereopticon or moving picture machine.

Dissolving Key—See key.

Film, Moving Picture—A transparent celluloid tape, one inch wide, containing 16 individual pictures to the foot, that may be of any length from 25 feet to 500 feet. Rapid projection on the curtain blends these pictures into harmonious, consecutive action, reproducing the original scene of which it is a photograph.

Film Winder—A device for rewinding film rapidly into a coil after it has been projected and allowed to run into a box or bag.

GLOSSARY—Continued

The gases are ignited at the burner tip, which directs the flame against the lime, causing incandescence and producing a dazzling light. Limes should always be kept in air tight boxes when stored.

Magic Lantern—An instrument for projecting a view upon a wall, curtain or other opaque white surface, the view being transparent and placed in front of the condensing lenses in the instrument; it is provided with an objective lens, which projects the view upon the curtain.

Objective, or Objective Lens—The convex lens or lenses attached to the front of instruments of projection, which receive the view from the condensing lenses, and project it forward, the size of the projected view increasing with the distance; a properly constructed objective consists of two achromatic lenses, mounted in a brass tube with a jacket, and rack and pinion for adjustment. Various foci are used, according to the distance from the instrument to the curtain. A wide angle objective is for short distance, a narrow angle for long distance.

Projection Instruments—This term indicates any form of apparatus which is employed to throw forward upon a curtain an enlarged image of a

view which is placed in the body of the instrument; its essentials are an illuminant, one or more condensing lenses and an objective, properly placed with reference to each other.

Rheostat, or Resistance Coil—A coil of wire of high resistance, employed to resist the excessive flow of the electric current to an arc lamp. Usually provided with adjustment to control the amount of resistance.

Stereopticons—Two magic lantern bodies, usually arrayed one above the other.

Switch—A device for connecting and disconnecting the current with an electric lamp.

Screen—See Curtain.

Saturator—An apparatus used to produce a substitute for hydrogen gas to feed the lime light burner. It is made in various forms, to contain either ether or gasoline.

Take-Up Device—A mechanism attached to the lower part of the kinetoscope whose purpose it is to wind up slack film after it has been through the machine; it is useful in that it prevents the film from becoming soiled or torn as when run into a box or bag, and minimizes the risk of fire by rolling the film into a compact coil.